SAGES 2013
SCIENTIFIC SESSION & POSTGRADUATE COURSES

Innovating the Present for the Future

Surgical Spring Week

FINAL PROGRAM

April 17 - 20, 2013
Baltimore, MD

Program Chairs:
Fredrick Brody, MD
Santiago Horgan, MD

Held in conjunction with ISLCRS –
the 8th International Congress of
Laparoscopic Colorectal Surgery

www.sages.org
sages2013.org | Twitter: @SAGES_Updates
Society of American Gastrointestinal and Endoscopic Surgeons
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SAGES 2013 Meeting Corporate Supporters

**DIAMOND DONORS**
- COVIDIEN
- STRYKER ENDOSCOPY

**PLATINUM DONORS**
- ETHICON ENDO-SURGERY
- KARL STORZ ENDOSCOPY
- MERCK
- OLYMPUS AMERICA, INC.

**GOLD DONOR**
- INTUITIVE SURGICAL

**SILVER DONORS**
- BOSTON SCIENTIFIC
- ENDOGASTRIC SOLUTIONS
- GORE & ASSOCIATES

**BRONZE DONORS**
- AESCULAP, INC.
- BAXTER HEALTHCARE
- MEDERI THERAPEUTICS
- NEOSURGICAL

**What Is ISLCRS?**
ISLCRS (International Society of Laparoscopic Colorectal Surgery) provides a forum to support collaboration between surgeons and scientists interested in the advancement of laparoscopic colorectal surgical techniques, helps in the education of surgeons wishing to learn these techniques, and works collaboratively with existing national and regional societies supporting laparoscopic colorectal surgery. The scientific program contains more concurrent sessions and joint lectures and sessions specifically geared toward colorectal surgeons. SAGES and ISLCRS will share one exhibit hall.

**SAGES Mission Statement**
The mission of the society is to improve the quality of patient care through education, research, innovation and leadership, principally in gastrointestinal and endoscopic surgery.
Again this year SAGES will be involved in several projects to support the community in which we host our annual meeting. This is an extraordinary way for registrants and guests to help repair the world one tiny step at a time.

If you did not register in advance, please check-in at the SAGES Membership Booth on the 4th Floor, across from the Main Session rooms, to signup onsite.

Donate blood! American Red Cross

**Thursday, April 18 – 10:00AM to 4:00PM**

*Convention Center; Room 324*

No one has to tell you how vital it is to have a blood supply available. For all those other times you were too busy, donate now!

Bone Marrow Testing – An easy way to Save a Life

**Thursday, April 18 – 10:00AM to 4:00PM**

*Convention Center; Room 324*

**Limitation: You must be between 18-44 to donate sign up**

No appointments necessary and it only takes a few minutes!

When you join the Be The Match Registry®, you are making a commitment to be ready to take the next step if a patient needs you. For all registry members, the most important thing you can do is stay committed, so if you are selected as a match for a patient you’re ready to move forward. If you match a patient, your commitment to donate is important, but you have the right to change your mind. However, a late decision to not donate can be life-threatening to a patient. Please think seriously about your commitment before joining the registry.

Marrow donation is a surgical outpatient procedure that takes place at a hospital. You will receive anesthesia and feel no pain during the donation. Doctors use a needle to withdraw liquid marrow from the back of your pelvic bone. The marrow replaces itself completely within 4 to 6 weeks.

Baltimore Reads

**Saturday, April 20 – 9:00AM to Noon**

*Please meet at 8:45AM at the Convention Center; Charles St. Lobby*

*Box Breakfast Provided*

Baltimore Reads is the major city-wide Book Bank. We will be donating books for kids (infant to 7 years) and sorting books in prep for their annual book event. We have sent books in advance, but please feel free to bring a children’s book as a personal donation. Advance registration to participate is strongly suggested as space for workers is limited.

Prepare Grocery Bags for a local food bank

**“The Baltimore Dream Center” Thursday, April 18 – 9:00AM to Noon**

*Convention Center; Room 330*

We will get together and pack special family-oriented bags of groceries and toiletries that will be distributed on Saturday to needy families. SAGES will supply the materials. Just come and help prepare the bags. We hope to prepare at least 100 bags! The pantry is the mission work for Pathway Church of God in the Brooklyn neighborhood. You can help further by bringing any extra toiletries from your hotel room for the bags.

Visit a Vet!

**Friday, April 19 – 10:00AM to (around noon)**

*Please meet at 9:30AM at the Convention Center; Pratt St. Entrance*

The V.A. Hospital in Baltimore is actually walking distance from our hotels and convention center. Join us to visit veterans at the Baltimore VA Medical Center. Just bring your wit and empathy. Our vets are happy to have visitors. If you’d like to bring a book or gift card, that’s OK, too.

SAGES Recognition of Excellence Award

Log onto SAGESPAGES to learn To Whom, From Whom and Why. SAGES will announce recipients of the 2013 SAGES Recognition of Excellence Coin after the meeting.

www.sages.org/sagespages
News for SAGES 2013

Save the Date!

SAGES Scientific Session & Postgraduate Course
April 2 - 5, 2014, Salt Lake City, UT

SAGES Scientific Session & Postgraduate Course
April 15 - 18, 2015, Gaylord Opryland Hotel, Nashville, TN

SAGES Scientific Session & Postgraduate Course
March 16 - 19, 2016, Boston, MA

SAGES Scientific Session & Postgraduate Course
March 22 - 25, 2017, Houston TX

SAGES will be using a cell-phone and mobile web-based system to handle Audience Response, Questions From the Floor, and General Meeting Announcements. If you wish to participate, please be sure to have one or more of the following in Baltimore:

1) A cell phone capable of sending SMS text messages in the USA
2) A mobile device capable of running the SAGES 2013 Meeting App

Please contact webmaster@sages.org if you have questions or need advice.

A Gentle Reminder About Safety/Security:

We have taken every precaution to assure the safety and security of our guests and their possessions. However, we urge you to be aware and take simple steps to guard your possessions.

• Do not leave your purse or briefcase unattended.
• Do not leave your iPad, laptop, phone or other electronic devices on the floor or out of your sight in a darkened room
• Be aware of your surroundings, in the convention center, in and around the downtown Baltimore area.

Have a safe & secure meeting!

Your Opinion Counts!

When you see folks in pink shirts with iPads, please take one minute (literally) to answer their questions. They are working for SAGES to help us learn what you want from the SAGES meeting and the Society.

Please participate because...

YOUR OPINION COUNTS!

CAMP SAGES
organized by Accent on Children’s Arrangements, Inc.

While you’re attending meetings, your children can enjoy their own Convention Camp. Camp SAGES is a complete morning to early evening entertainment program packed with activities for children ages 6 months to 17 years. Children participate in age-appropriate activities, including arts and crafts projects and active games, in a safe, nurturing, and educational environment.

Location: Hilton Baltimore Convention Center
Room Poe and Calloway in North Foyer, just off the Skybridge from Convention Center

Available hours:
Wed - Fri, April 17-19: 7am - 6pm
Saturday, April 20: 7:30am - 4:30pm

Fee: $12/hour with 3 hours minimum.
Non-refundable pre-registration fee is $25
## SAGES 2013 Schedule at a Glance

**Program Chairs:** (SAGES) Fredrick J. Brody, MD & Santiago Horgan, MD (ISLCRS) Conor Delaney, MD, PhD

Oral & Video Sessions will take place throughout the SAGES Scientific Session (Thursday, Friday and Saturday).

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<td>10:30 AM</td>
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<td>Exhibit Hall E</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>3:30 PM</td>
<td>Panel: NOTES Videos</td>
<td>Room 339</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>5:30 PM</td>
<td>Dr. George Bercl Film Debut</td>
<td>Room 339</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>5:00 PM</td>
<td>Ultimate SAGES Competition – Qualifying Round Testing for Residents</td>
<td>Room 330</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>6:30 PM</td>
<td>SERF Cocktail Reception</td>
<td>Room 343</td>
</tr>
</tbody>
</table>

**Industry Education Evening Events - these events are not accredited by SAGES for CME**

- 5:30 PM | 7:30 PM | Baxter Healthcare: Techniques and Biologic Technologies in Bariatric and HBP Surgery | Room 337
- 5:30 PM | 7:30 PM | Davol Inc.: Patient-Focused Approach to Technique and Mesh Selection in Hernia Repair | Room 327
- 5:30 PM | 7:30 PM | Intuitive Surgical: I'm an Advanced Laparoscopic Surgeon...And Now is the Time for Robotics | Ballroom I
- 5:30 PM | 7:30 PM | Stryker Endoscopy: Smaller and Smarter: Needleless Surgical | Room 318
- 5:30 PM | 7:30 PM | Torax Medical Inc.: Revitalizing the Surgeons' Role in Reflux Disease | Ballroom II
# SAGES 2013 Schedule at a Glance

## FRIDAY, APRIL 19, 2013

<table>
<thead>
<tr>
<th>START</th>
<th>END</th>
<th>SESSION</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Panel: SAGES Town Hall on Healthcare Reform – What You Need to Know!</td>
<td>Room 318</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Concurrent Session SS4 Solid Organ</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Concurrent Session SS5 Robotics</td>
<td>Room 327</td>
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<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Concurrent Session SS6 Therapeutic Endoscopy</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Concurrent Session SS7 Colorectal Abstracts and Podium Presentations I</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>8:30 AM</td>
<td>10:00 AM</td>
<td>SSS Plenary Session I</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>4:00 PM</td>
<td>Exhibits, Poster Session, Learning Center Open</td>
<td>Exhibit Hall E</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>10:45 AM</td>
<td>Keynote: Presidential Address – W. Scott Melvin, MD “Journeys”</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>10:45 AM</td>
<td>11:30 AM</td>
<td>Keynote: Gerald Marks Lecture – “A Blueprint for Quality and Patient Safety in an Era of Innovation” E. Christopher Ellison, MD</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Session: Simulation – The Next Generation</td>
<td>Room 327</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Panel: MIS in Pregnancy</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Debate: Presidential Debates</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Panel: SAGES/SSAT – Update on Bile Duct Injuries</td>
<td>Room 318</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Concurrent Session SS9 Colorectal Abstract &amp; Podium Presentations II</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>12:30 PM</td>
<td>1:30 PM</td>
<td>Fellowship Council Luncheon: Surgical Skills and Competencies</td>
<td>Room 339</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>3:00 PM</td>
<td>Panel: Bariatic and Pediatric Emergencies for the non-Pediatric, non-Bariatric Surgeon</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>3:00 PM</td>
<td>Session: Emerging Technology – session not accredited for CME by SAGES</td>
<td>Room 327</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>3:30 PM</td>
<td>Panel: Pancreas – Current Controversies in Minimally Invasive Pancreatic Surgery</td>
<td>Room 318</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>3:30 PM</td>
<td>Concurrent Session SS10 Foregut</td>
<td>Room 318</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>3:30 PM</td>
<td>Concurrent Session SS11 Colorectal Abstract &amp; Podium Presentations III</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>4:30 PM</td>
<td>Panel: Multidisciplinary Future of Surgery</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>5:30 PM</td>
<td>Resident/Fellow Scientific Session</td>
<td>Room 327</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>4:00 PM</td>
<td>Happy (Half) Hour Break in Exhibit Hall</td>
<td>Exhibit Hall E</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>5:30 PM</td>
<td>Panel: Acute Care Laparoscopy</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>5:30 PM</td>
<td>Panel: Foregut – Myth Meets Reality</td>
<td>Room 318</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>5:30 PM</td>
<td>Panel: SAGES/ISLCS – Colorectal Robotics: The 2013 Update</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>5:30 PM</td>
<td>SAGES/CAGS Session/Competition: Ultimate SAGES</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>7:30 PM</td>
<td>Meet the Leadership Reception for Residents, Fellows &amp; New Members</td>
<td>Tatu Asian Restaurant &amp; Power Plant Live!</td>
</tr>
<tr>
<td>7:30 PM</td>
<td>11:30 PM</td>
<td>SAGES Gala &amp; International Sing-Off</td>
<td>Power Plant Live!</td>
</tr>
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## SATURDAY, APRIL 20, 2013

<table>
<thead>
<tr>
<th>START</th>
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<th>LOCATION</th>
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<tbody>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Session: Advancements in Military Surgery</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Session: Career Development</td>
<td>Room 327</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Concurrent Session SS12 SAGES Potpourri</td>
<td>Room 318</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Concurrent Session SS13 Obesity II</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Concurrent Session SS14 Outcomes</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>1:00 PM</td>
<td>SAGES Mini-Med School Boot Camp for HS Students</td>
<td>Room 339</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>11:30 AM</td>
<td>SS15 Plenary Session II</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>1:00 PM</td>
<td>Exhibits, Poster Session, Learning Center Open</td>
<td>Exhibit Hall E</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>1:00 PM</td>
<td>SAGES Annual General Membership Business Meeting - All SAGES Members Encouraged to Attend!</td>
<td>Room 327</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>1:00 PM</td>
<td>FREE LUNCH for All Attendees</td>
<td>Exhibit Hall E</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:30 PM</td>
<td>Symposium: Essentials of Robotic Surgery</td>
<td>Ballroom III &amp; IV</td>
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<tr>
<td>1:00 PM</td>
<td>2:30 PM</td>
<td>Panel: Management of GIST Tumors</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:30 PM</td>
<td>Session: SAGES/AORN – Patient Safety Checklist – Time Out and Huddle</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:30 PM</td>
<td>Concurrent Session SS16 Education/Simulation</td>
<td>Room 318</td>
</tr>
</tbody>
</table>
General Information

Unique Features of the 2013 SAGES Meeting

- Casual attire – Leave your ties and button down shirts at home. Order a SAGES polo.
- Learn essentials regarding Foregut Surgery, Emerging Endoscopic Techniques (POEM), Complex Ventral Hernia Repairs, and Innovative Bariatric Procedures
- Learn the basic laparoscopic and endoscopic tenents to treat Common Duct Stones and diseases during Pregnancy
- Enjoy a Joint Conference with ISLCRS and cover almost every aspect of colorectal disease
- SAGES Humanitarianism and Volunteer efforts
- Enjoy a Documentary about Dr. George Berci
- Heckle previous Presidents as they debate current topics
- Enjoy the 007 exhibit for the most innovative technology available from Industry
- Allied Health Care Professionals should not miss SAGES AORN MIS Safety Checklist session.
- Relax at the Exhibit Hall Lounge for informal gatherings and re-charge your electronic devices!
- Bring the family. Child care, mini med school for high school students; and Top Gun for Kids
- Gala and Sing-Off at the Power Plant Live!
- iOs + Android App!
SAGES Policy on Conflict of Interest

A. Identifying Conflicts of Interest

SAGES has implemented a five-tiered approach towards identifying potential conflicts of interest.

1. Members of committees involved in the planning of CME activities, including the Board of Governors, must provide a financial disclosure. These disclosures are sent to the committee in advance of each committee meeting. Attendees are reminded about the disclosure policy at each committee meeting, and any committee member with a conflict is asked to recuse him or herself from the discussion of any CME activities.

2. Course Directors for CME activities must provide their financial disclosures along with their suggested course outline and faculty. This information is forwarded to the Conflict of Interest Task Force, who then determines whether or not a potential conflict exists and makes suggested edits.

3. Invited faculty for CME activities must provide their financial disclosures upon invitation to serve as faculty.

4. For abstract submissions for the scientific session, the presenting and senior authors must provide disclosures. Abstracts are peer reviewed in a blinded fashion by multiple reviewers and are selected for presentation based on scientific merit. All disclosures are provided to the Program Committee during the “Put-The-Program-Together” meeting at which abstracts are selected for presentation.

5. All speakers at SAGES CME activities must display a list of financial disclosures on the first slide of their presentation.

B. Managing Potential Conflicts of Interest

SAGES has implemented several mechanisms to manage conflicts of interest prior to an educational activity.

1. Self-management, such as the committee member recusing him or herself from discussion of CME activities.

2. The SAGES Conflict of Interest Task force reviews all Course Director’s disclosures, proposed course outlines and faculty lists. The Conflict of Interest Task Force will make edits to the course outline or faculty list if necessary.

3. The SAGES disclosure form requires faculty to provide management suggestions if there is a relationship with a commercial entity. This information is forwarded to the Course Director, who is responsible for determining whether or not a conflict exists and if so, how to manage this conflict.

4. If a conflict is determined, then a letter is sent to the faculty member, requiring them to adhere to the management technique or else recuse him or herself from the presentation.

5. During the session, the Course Director observes the presentations and makes note of commercial bias. If any is perceived, this is immediately reported to the staff.

6. All attendees of CME activities are requested to make note of perceived commercial bias in activity evaluations and bias report forms. The Conflict of Interest Task Force and/or the CME Committee will investigate substantive concerns.
SAGES 2013 Meeting Commercial Bias Reporting Form

You are encouraged to ...

1) Document (on this form) any concerns about commercially-biased presentations/ materials during educational sessions, and

2) Immediately take your completed form to the SAGES staff at Meeting Registration at the Baltimore Convention Center or fax it to (310) 437-0585.

Your feedback will be shared with a member of the Conflict of Interest Task Force, Program and/or Continuing Education Committee, who will make the faculty and course chair(s) aware of these concerns.

Commercial Bias

The Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) has an obligation to the medical profession and society as a whole to elucidate bias in order to protect the objectivity, scientific integrity and quality of its continuing medical education (CME) programs and to provide CME in an ethical and impartial manner. Bias is defined when a preference or predisposition exist toward a particular perspective or result that interferes with an individual’s ability to be impartial, unprejudiced or objective in order to further personal gain and disregard for data. Particular preferences may be favorable or unfavorable. When bias exists, impartial judgment and neutrality may be compromised. Bias may be minimized through a declaration of conflict of interest or commercial interests, an evaluation of peer-reviewed evidence-based medicine with an integration of clinical expertise and/or experience, and an assertion of published sources for evidence-based reporting. SAGES requires presenters at all educational events to specifically avoid introducing bias, commercial or otherwise, into their presentations.

Presentation: (eg session name, etc)
Commercial Bias by: (ie faculty name, company rep)
Promotion via: (eg handouts, slides, what they said, actions)

Commercial Bias about:
(check all that apply)

_ Patient treatment/management recommendations weren’t based on strongest levels of evidence available.
_ Emphasis was placed on one drug or device versus competing therapies, and no evidence was provided to support its increased safety and/or efficacy.
_ Trade/brand names were used.
_ Trade names versus generics were used for all therapies discussed.
_ The activity was funded by industry and I perceived a slant toward the grantors.
_ The faculty member had a disclosure and I perceived a slant toward the companies with which he/she has relationships.
_ Other (please describe): __________________________

Please return this form to SAGES Meeting Registration or fax to (310) 437-0585.
**Accreditation:**

The Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor Continuing Medical Education for physicians. The Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) designates this live activity for a maximum of 33.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**CME Worksheet for the 2013 SAGES Scientific Session & Postgraduate Course:**

This is NOT your CME credit form. Please use the worksheet below to track the number of CME hours you attend for each activity. All attendees wishing to receive a CME certificate for activities attended at the 2013 SAGES Scientific Session & Postgraduate Course must complete the on-line meeting evaluation. Attendees will be able to print and re-print their certificates throughout the on-line system.

- During or after the meeting: Attendees will have access to the on-line meeting evaluation and credit claim form via cme.sages.org.

**Be sure to retain your Conference Badge as the ID number will be your online PIN number.** An email will also be sent, reminding attendees of this service.

**Self-Assessment CME Credit, Part 2 of the American Board of Surgery (ABS) Maintenance of Certification (MOC) Program:**

This activity has also been designated as Self-Assessment CME credit, applicable to Part 2 of the ABS MOC program. In order to claim Self-Assessment credit, attendees must participate in a post meeting assessment quiz based on Learning Themes which will be available in the on-line meeting evaluation system at cme.sages.org. For additional information on the ABS MOC program and it’s requirements, visit the ABS website at: http://home.absurgery.org/

To fully comply with ACCME regulations, all SAGES Meeting attendees must have their badge scanned before entering any course or session room in order to receive CME credit for that event.

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<thead>
<tr>
<th>Activity</th>
<th>Hours</th>
<th>Credits</th>
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<tr>
<td>PG Course: Foregut-Beyond GERD &amp; Hiatal Hernia</td>
<td>4.25</td>
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<tr>
<td>PG Course: Bariatric – What Every Safe Surgeon Needs to Know About Bariatric Surgery</td>
<td>4.25</td>
<td></td>
</tr>
<tr>
<td>PG Course: SAGES/ISLCRS: MIS Colorectal: Overcoming Hurdles to Adoption and New Frontiers</td>
<td>4.25</td>
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<tr>
<td>PG Course: SAGES/AES – MIS Endocrine: Controversial Topics in MIS Endocrine Surgery</td>
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<tr>
<td>HO Course: Bariatric Surgery</td>
<td>4</td>
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<tr>
<td>HO Course: Colorectal Surgery</td>
<td>4</td>
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<tr>
<td>SAGES/AHPBA – Minimally Invasive HPB: We Can Do It, Now What?</td>
<td>2</td>
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<tr>
<td>Pre-, Intra-, Post-Operative Management of CBD Stones</td>
<td>2</td>
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<tr>
<td>PG Course: Optimizing Outcomes of Ventral and Inguinal Hernia Repairs</td>
<td>2</td>
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<tr>
<td>SAGES/SES Panel: Endoscopic Management of GEJ Disease – Dysplasia &amp; Barrett’s</td>
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<td>Complications</td>
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<td><strong>SUBTOTAL</strong></td>
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<tr>
<td>PG Course: Endoluminal Treatments – GERD and POEM</td>
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<td>PG Course: Surgical Techniques for Ventral Hernias</td>
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<td>SAGES/ISLCRS Panel: IBD</td>
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<td>SAGES/ISLCRS: Colorectal Potpourri</td>
<td>2</td>
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<td>Educator’s Luncheon – New Paradigms for MIS Training: Is Early Specialization Right for Your Program?</td>
<td>1</td>
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<td>HO Course: Endoluminal Treatments</td>
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<tr>
<td>HO Course: Ventral Hernia – Strategies for the Complex Abdominal Wall: Laparoscopic and Open</td>
<td>4</td>
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<tr>
<td>SAGES/ISLCRS/ASCRS Symposium – Optimizing Outcomes in Rectal Cancer</td>
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<tr>
<td>Re-Operative Foregut Surgery</td>
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<tr>
<td>SAGES/ASMB Panel – Innovative Bariatric Procedures</td>
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<td>Humanitarianism</td>
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<tr>
<td>NOTES Videos</td>
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<tr>
<td>Scientific Sessions</td>
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<td><strong>SUBTOTAL</strong></td>
<td><strong>MAX: 9.5</strong></td>
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<tr>
<td>Plenary Session</td>
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<tr>
<td>Residents &amp; Fellows Session</td>
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<tr>
<td>SAGES Townhall on Healthcare Reform</td>
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<tr>
<td>Presidential Address: “Journeys”</td>
<td>0.75</td>
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<tr>
<td>Gerald Marks Lecture – “A Blueprint for Quality and Patient Safety in an Era of Innovation”</td>
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<td>Presidential Debates</td>
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<td>SAGES/SSAT Panel – Update on Bile Duct Injuries</td>
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<td>Simulation – The Next Generation</td>
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<td>MIS in Pregnancy</td>
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<td>Fellowship Council Luncheon</td>
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<tr>
<td>Bariatric and Pediatric Emergencies for the non-Bariatric, non-Pediatric Surgeon</td>
<td>2</td>
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<tr>
<td>Emerging Technology Session</td>
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<tr>
<td>Pancreas Panel – Current Controversies in Minimally Invasive Pancreatic Surgery</td>
<td>2</td>
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<tr>
<td>Multidisciplinary Future of Surgery</td>
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<tr>
<td>Foregut – Myth Meets Reality</td>
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<tr>
<td>Acute Care Laparoscopy</td>
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<td>SAGES/ISLCRS Panel – Colorectal Robotics: The 2013 Update</td>
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<td>Ultimate SAGES</td>
<td>1</td>
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<td><strong>SUBTOTAL</strong></td>
<td><strong>MAX: 10</strong></td>
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<td>Career Development</td>
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<tr>
<td>Advancements in Military Surgery</td>
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<tr>
<td>Plenary Session</td>
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<tr>
<td><strong>SUBTOTAL</strong></td>
<td><strong>MAX: 5.75</strong></td>
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<tr>
<td>Karl Storz Lecture in New Technology – “The Shock of the New: The Innovator’s Role in Surgery”</td>
<td>0.75</td>
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<tr>
<td>Management of GIST Tumors</td>
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<tr>
<td>Essentials of Robotic Surgery</td>
<td>1.5</td>
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<tr>
<td>SAGES/AORN Patient Safety Checklist – Time Out and Huddle</td>
<td>1.5</td>
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<tr>
<td>Scientific Sessions</td>
<td>3</td>
<td></td>
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<tr>
<td>SAGES Mini Medical School Boot Camp</td>
<td>0</td>
<td></td>
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</tbody>
</table>
Steps to Obtaining Self-Assessment CME Credit

Part 2 of the American Board of Surgery (ABS) Maintenance of Certification (MOC) Program

The American Board of Surgery (ABS) requires completion of 90 hours of Category I CME relevant to your practice over a three-year MOC cycle. As of July 2012, at least 60 (previously 30) of the 90 hours completed over a three-year cycle must include a self-assessment activity. The SAGES Annual Meeting has been designated as Self-Assessment CME credit, applicable to Part 2 of the ABS MOC program. You must complete the following steps to obtain Part 2 SA credits. For additional information on the ABS MOC program and its requirements, visit the ABS website at: http://home.absurgery.org/

Step 1: Attend the SAGES Meeting

Step 2: Note the Learning Themes for which you attended the greatest number of hours

Step 3: Complete Evaluation Tool & CME Claim
cme.sages.org

Step 4: Successfully answer 8 questions related to 2 Learning Themes

Step 5: Print your CME certificate and Part 2 SA credit online

Learning Theme Symbols (look for these throughout the final program)

- **B** Bariatrics
- **C** Colorectal
- **FE** Flex Endo
- **FOR** Foregut
- **HR** Hernia
- **AE** Academic/Educational – simulation-based teaching, research-related techniques, career development, fellowship training, and the development of innovative ideas
- **NS** New technologies/Skill acquisition – cutting-edge therapies such as robotic, single access, POEM, and natural orifice techniques
- **PE** Professional/Economic – strategies for improving practice efficiency and patient safety including billing and the use of electronic medical records
- **HPB** HPB
- **SO** Solid organ

The Role of SAGES Guidelines in the World of Surgery

Once you leave surgical training, what are the new and emerging rules on how to treat patients? Even if you attend meetings and read a plethora of journals, it is not always clear what the “standard of practice” is. Also, not clear is what your hospital may expect from you in order to allow you to perform new procedures. The SAGES Guidelines Committee does that work for you, your privileging committee and the entire surgical community. SAGES guidelines are evidence based. It takes approximately ten people and one year to do the research and make the determination of which standards to adopt.

The development and dissemination of guidelines is one of the most valuable services SAGES provides to general and minimal access surgery. For the first time, you can find guidelines and/or statements reference as they relate to the content of each session under the session’s description and you also have access to direct links in our mobile app under the session description.

Complete list of all of our guidelines and statements is available at http://www.sages.org/publications

Keep your surgical practice up to date with SAGES Standards of Practice Guidelines!
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Postgraduate: Bariatric - What Every Safe Surgeon Needs to Know About Bariatric Surgery?
Chair: Raul J. Rosenthal, MD
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Postgraduate: Foregut - Beyond GERD & Hiatal Hernia
Chair: C. Daniel Smith, MD
Co-Chair: Bernard Dallemagne, MD

Postgraduate: SAGES/ISLCRS- MIS Colorectal: Overcoming hurdles to adoption and new frontiers
Chair: John H. Marks, MD
Co-Chair: Joel Lero, MD

Postgraduate: Optimizing Outcomes of Ventral & Inguinal Hernia Repairs
Chair: Bruce J. Ramshaw, MD
Co-Chair: David Bryan Earle, MD

Postgraduate: SAGES/AAES- MIS Endocrine: Controversial Topics in MIS Endocrine Surgery
Chair: William Barry Inabnet III, MD
Co-Chair: L. Michael Brun, MD

Postgraduate: Endolumenal Treatments - GERD and POEM
Chair: Brian J. Dunkin, MD
Co-Chair: Jose M. Martinez, MD

Postgraduate: Ventral Hernia
Chair: Michael J. Rosen, MD
Co-Chair: Kenric M. Murayama, MD

Hands-On: Bariatric Surgery
Chair: Bryan J. Sandler, MD
Co-Chair: Pablo Esteban

Hands-On: Colorectal
Chair: Sonia L. Ramamoorthy, MD
Co-Chair: Alessio Pigazzi, MD

Hands-On: Endolumenal Treatments
Chair: Bryan J. Sandler, MD
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Chair: Michael Magdi Awad, MD

Lunch: Fellowship Council Luncheon
Chair: Maurice E. Arregui, MD

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Wednesday, April 17 -
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For more details or to schedule your test:
Fundamentals of Endoscopic Surgery™ - info@fesprogram.org
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SAGES 2013 Meeting Leaders

SAGES Panel/Session/Symposium/Debates Chairs/Co-Chairs:

Panel: Pre-, Intra-, Post-Operative Management of CBD Stones
Chair: Jeffrey W. Hazey, MD
Co-Chair: Joseph B. Petelin, MD

Panel: SAGES/AHPBA-Minimally Invasive HPB; We can do it, now what?
Chair: Horacio J. Ashun, MD
Co-Chair: David M. Mahvi, MD

Panel: SAGES/ISES-Endoscopic Management of GEJ Disease - Dysplasia & Barrett's
Chair: Jeffrey M. Marks, MD
Co-Chair: Haruhiro Inoue, MD

Panel: Humanitarianism
Chair: Tonia M. Young-Fadok, MD
Co-Chair: Jo Buyske, MD

Panel: NOTES Videos
Chair: John D. Mellinger, MD
Co-Chair: Eric Steven Hungness, MD

Panel: ReOperative Foregut Surgery
Chair: Michael D. Holzman, MD, MPH
Co-Chair: Nicole M. Fearing, MD

Panel: SAGES/ASMB-Endoscopic Bariatric Procedures
Chair: Alfonso Pomp, MD
Co-Chair: Alex P. Nagle, MD

Panel: SAGES/ISLCS-Colorectal Potpourri
Chair: Conor P. Delaney, MD, PhD
Co-Chair: Roger Motson, MD

Panel: SAGES/ISLCS:IBD
Chair: Tonia M. Young-Fadok, MD
Co-Chair: C. Neal Ellis, MD

Panel: Acute Care Laparoscopy
Chair: Lena M Napolitano, MD
Co-Chair: Raymond P. Onders, MD

Panel: Bariatric and Pediatric Emergencies for the non-Pediatric, non-Bariatric Surgeon
Chair: Daniel M. Herron, MD
Co-Chair: Gretchen Purcell-Jackson, MD

Panel: Foregut - Myth Meets Reality
Chair: Vic Velanovich, MD
Co-Chair: Pratibha Vemulpalli, MD

Panel: MIS in Pregnancy
Chair: David C. Brooks, MD
Co-Chair: Danielle S Walsh, MD

Panel: Multidisciplinary Future of Surgery
Chair: Steve Eubanks, MD
Co-Chair: Daniel J. Scott, MD

Panel: Pancreas - Current Controversies in Minimally Invasive Pancreatic Surgery
Chair: R. Matthew Walsh, MD
Co-Chair: L. William Traverso, MD

Panel: SAGES/ISLCS-Colorectal Robotics
Chair: Seon-Han Kim, MD
Co-Chair: Vincent James Obias, MD

Panel: SAGES/SSAT—Update on Bile Duct Injuries
Chair: David W. Rattner, MD
Co-Chair: Jeffrey B. Matthews, MD

Panel: SAGES Town Hall on Healthcare Reform
Chair: Matthew M. Hutter, MD, MPH
Co-Chair: Eli N. Lerner, MD

Panel: Management of GIST Tumors
Chair: Sricharan Chalikonda, MD
Co-Chair: David R. Urbach, MD

Session: Resident/Fellow Presentations
Chair: Tung Tran, MD
Co-Chair: Vanessa Palter, MD

Session: Complications
Chair: Thadeus L. Trus, MD
Co-Chair: Todd Ponsky, MD

SAGES/CAGS Session: Ultimate SAGES
Chair: Christopher M. Schlachta, MD

Session: Emerging Technology
Chair: Yoav Mintz, MD
Co-Chair: Dmitry Oleynikov, MD

Session: Simulation - The Next Generation
Chair: Allan E. Okrainec, MD
Co-Chair: Melina C. Vassiliou, MD

Session: Advancements in Military Surgery
Chair: Robert B. Lim, MD
Co-Chair: Yong U. Choi, MD
Co-Chair: Gordon G. Wisbach, MD

Session: Career Development Seminar
Chair: Aurora Dawn Fryor, MD
Co-Chair: Leena Khaitan, MD

Session: SAGES/AORN—Patient Safety Checklist - Time Out and Huddle
Chair: Khashayar Vaziri, MD
Co-Chair: Charlotte Guglielmi BSN, RN, CNOR

Symposium: SAGES/ALACE—Surgery South of the Border; What’s New?
Chair: Diego R. Camacho, MD
Co-Chair: Natan Zundel, MD

Symposium: SAGES/ISLCS/ASCRS—Optimizing Outcomes in Rectal Cancer
Chair: Steven D. Wexner, MD
Co-Chair: Eric Rullier, MD

Symposium: Essentials of Robotic Surgery
Chair: Vincent James Obias, MD
Co-Chair: Matthew D. Kroh, MD

Debate: Presidential Debates
Chair: Gerald M. Fried, MD

Past Presidents

<table>
<thead>
<tr>
<th>Year</th>
<th>President</th>
<th>Year</th>
<th>President</th>
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<th>President</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001-2002</td>
<td>Frederick L. Greene</td>
<td>2002-2003</td>
<td>Bruce D. Schirmer</td>
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</table>
### Wednesday, April 17, 2013

<table>
<thead>
<tr>
<th>START</th>
<th>END</th>
<th>SESSION</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>12:00 PM</td>
<td><strong>Half-Day Postgraduate Course: Bariatric – What Every Safe Surgeon Needs to Know About Bariatric Surgery?</strong></td>
<td>Ballroom I</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>12:00 PM</td>
<td><strong>Half-Day Postgraduate Course: Foregut – Beyond GERD &amp; Hiatal Hernia</strong></td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>12:00 PM</td>
<td><strong>Half-Day Postgraduate Course: SAGES/ISLCRS – MIS Colorectal: Overcoming Hurdles to Adoption and New Frontiers</strong></td>
<td>Ballroom II</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>1:30 PM</td>
<td><strong>SAGES Foundation Awards Luncheon</strong></td>
<td>Room 339</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>5:30 PM</td>
<td><strong>Half-Day Hands-On Course: Bariatric</strong></td>
<td>Exhibit Hall G</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>5:30 PM</td>
<td><strong>Half-Day Hands-On Course: Colorectal</strong></td>
<td>Exhibit Hall G</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>3:30 PM</td>
<td><strong>Panel: Pre-, Intra-, Post-Operative Management of CBD Stones</strong></td>
<td>Ballroom II</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>3:30 PM</td>
<td><strong>Postgraduate Course: SAGES/AAES – MIS Endocrine: Controversial Topics in MIS Endocrine Surgery</strong></td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>3:30 PM</td>
<td><strong>Panel: SAGES/AHPBA – Minimally Invasive HPB; We Can Do It, Now What?</strong></td>
<td>Ballroom I</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>5:30 PM</td>
<td><strong>Postgraduate Course: Optimizing Outcomes of Ventral &amp; Inguinal Hernia Repairs</strong></td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>5:30 PM</td>
<td><strong>Session: Complications</strong></td>
<td>Ballroom II</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>5:30 PM</td>
<td><strong>Panel: SAGES/JSES – Endoscopic Management of GEJ Disease - Dysplasia &amp; Barrett’s</strong></td>
<td>Ballroom I</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td><strong>Exhibits Opening Welcome Reception</strong></td>
<td>Exhibit Hall E</td>
</tr>
</tbody>
</table>
Wednesday, April 17, 2013

7:30AM - 12:00 PM

**Postgraduate Course: Foregut – Beyond GERD & Hiatal Hernia**

**Session Chair:** C. Daniel Smith, MD; **Session Co-Chair:** Bernard Dallemagne, MD

**SESSION DESCRIPTION**

This session will cover complex topics in foregut surgery increasingly encountered by surgeons caring for patients with foregut conditions. World experts will discuss presentation, diagnosis and management strategies for these conditions that go well beyond basic GERD and hiatal hernia. This session’s objectives are a classical application of educational principles to adult learning. The problem is the increasing complexity in managing foregut disease as new therapies become available and the diseases themselves are increasingly advanced presentations. Participants will learn the varied presentations of these more complex conditions and management strategies that go beyond managing basic foregut conditions. On returning to their practice, they will be equipped to change how they operate by applying this knowledge in caring for foregut patients. This improved understanding will allow for better patient selection and use of advanced interventions.

**SESSION OBJECTIVES**

At the conclusion of this session, participants will be able to:

- Understand and describe complex conditions and circumstances effecting surgical foregut diseases
- Recognize some of the innovations and new technologies used in managing foregut disease
- Be aware of the impact that advanced presentations of foregut disease can have on selecting management strategies for these patients
- Approach complex foregut conditions with greater confidence

**SESSION OUTLINE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
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<tbody>
<tr>
<td>7:30AM</td>
<td>Introduction</td>
<td>C. Daniel Smith, MD</td>
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<tr>
<td></td>
<td></td>
<td>Bernard Dallemagne, MD</td>
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<tr>
<td></td>
<td><strong>GERD &amp; Hiatal Hernia</strong></td>
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<tr>
<td>7:35AM</td>
<td>Management Strategies for Complex GERD (Stricture and Barretts)</td>
<td>Jeffrey Peters, MD</td>
</tr>
<tr>
<td>8:15AM</td>
<td>Hiatal Hernia</td>
<td>C. Daniel Smith</td>
</tr>
<tr>
<td>8:35AM</td>
<td>What to Do in the Obese</td>
<td>Samer Mattar, MD</td>
</tr>
<tr>
<td>8:55AM</td>
<td>Emerging Technologies and Techniques</td>
<td>Reginald Bell, MD</td>
</tr>
<tr>
<td>9:15AM</td>
<td>Panel Discussion – Audience Questions and Cases</td>
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<tr>
<td>10:00AM</td>
<td>Break</td>
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<tr>
<td></td>
<td><strong>Gastric Neoplasms</strong></td>
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<tr>
<td>10:15AM</td>
<td>GIST and Submucosal Tumors</td>
<td>David Rattner, MD</td>
</tr>
<tr>
<td>10:30AM</td>
<td>Early Gastric Cancer</td>
<td>Han-Kwang Yang, MD</td>
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<tr>
<td></td>
<td><strong>Other Esophageal Conditions</strong></td>
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<tr>
<td>10:45AM</td>
<td>Submucosal Tumors</td>
<td>Sricharan Chalikonda, MD</td>
</tr>
<tr>
<td>11:00AM</td>
<td>Esophageal Diverticulae and Achalasia</td>
<td>Christy Dunst, MD</td>
</tr>
<tr>
<td>11:15AM</td>
<td>MIS in Esophageal Neoplasms</td>
<td>Giovanni Dapri, MD/</td>
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<td>Guy B. Cadiere, MD</td>
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<tr>
<td></td>
<td>Panel Discussion – Audience Questions and Cases</td>
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</tr>
</tbody>
</table>

**LEARNING THEME**

- **FE** Flex Endo
- **NS** New technologies/skills acquisition
- **FOR** Foregut

**GUIDELINES**

- Surgical Treatment of Esophageal Achalasia
- Surgical Treatment of Gastroesophageal Reflux Disease (GERD)

*SAGES acknowledges an educational grant in support of this course from Stryker Endoscopy*
One in every three Americans is overweight and obesity is now a global epidemic. Nearly 250,000 weight loss operations will be performed in the U.S. this year, and the General Surgeon needs to be comfortable when these patients present to the ED or are seen years later for other problems.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

• Describe the indications for weight loss surgery and types of procedures
• Review best practice guideline for an accredited program
• Improve diagnosis and treatment of internal hernia, band prolapse, leak, stenosis, and nutritional deficiency in the emergency setting
• Implement appropriate patient consent prior to performing lap band procedure

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30AM</td>
<td>Laparoscopic Adjustable Gastric Band</td>
<td>Jaime Ponce, MD</td>
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<tr>
<td>7:40AM</td>
<td>Gastric Bypass</td>
<td>Daniel Herron, MD</td>
</tr>
<tr>
<td>7:50AM</td>
<td>Duodenal Switch</td>
<td>Alfons Pomp, MD</td>
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<tr>
<td>8:00AM</td>
<td>Sleeve Gastrectomy GERD/Barrett's before and after LSG</td>
<td>James Ellsmere, MD</td>
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<tr>
<td>8:10AM</td>
<td>Reoperative Surgery</td>
<td>John Morton, MD</td>
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<tr>
<td>8:20AM</td>
<td>Panel Discussion</td>
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<td></td>
<td>Perioperative Consideration</td>
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<tr>
<td>8:45AM</td>
<td>Airway and Sleep Apnea</td>
<td>Scott Shikora, MD</td>
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<tr>
<td>8:55AM</td>
<td>Thromboprophylaxis</td>
<td>Michael Schweitzer, MD</td>
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<tr>
<td>9:05AM</td>
<td>Leaks/Stenosis after RYGBP</td>
<td>Bruce D. Schirmer, MD</td>
</tr>
<tr>
<td>9:15AM</td>
<td>Leaks and Stenosis after LSG</td>
<td>Samuel Szomstein, MD</td>
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<tr>
<td>9:25AM</td>
<td>Panel Discussion</td>
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<tr>
<td>9:45AM</td>
<td>Break</td>
<td></td>
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<tr>
<td>10:00AM</td>
<td>Nutritional Metabolic Complications that I Need to Manage</td>
<td>Jamie Devin Adair, MD</td>
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<tr>
<td>10:10AM</td>
<td>Hypoglycemia</td>
<td>Shawn T. Tsuda, MD</td>
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<tr>
<td>10:20AM</td>
<td>Discussion</td>
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<tr>
<td>10:30AM</td>
<td>Conditions Requiring Urgent Attention and What I do First</td>
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<td></td>
<td>Slippage</td>
<td>Christine Ren-Fielding, MD</td>
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<tr>
<td></td>
<td>Perforated Marginal Ulcer</td>
<td>Ronald H. Clements, MD</td>
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<td>Small Bowel Obstruction</td>
<td>Benjamin E. Schneider, MD</td>
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<td>GI Bleeding</td>
<td>Ninh T. Nguyen, MD</td>
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<tr>
<td></td>
<td>Bile Duct Complications</td>
<td>Robert Andrews, MD</td>
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<td></td>
<td>Discussion</td>
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<tr>
<td>11:45AM</td>
<td>Best Practices and ACS-ASMBS Accreditation</td>
<td>David Provost, MD</td>
</tr>
</tbody>
</table>

LEARNING THEME

B Bariatrics

GUIDELINES

• Clinical Application of Laparoscopic Bariatric Surgery
• Deep Venous Thrombosis Prophylaxis During Laparoscopic Surgery
• Position Statement on Advanced Laparoscopic Training
Postgraduate Course: SAGES/ISLCRS – MIS Colorectal: Overcoming Hurdles to Adoption and New Frontiers

Session Chair: John Marks, MD; Session Co-Chair: Joel Leroy, MD

SESSION DESCRIPTION
The purposes are to inform participants about the basic principles of a good laparoscopic colorectal procedure, review standardized procedures, and inform participants about the latest research and development in the field of minimally invasive colorectal surgery.

SESSION OBJECTIVES:
At the conclusion of this session, participants will be able to:
• Describe an oncologic laparoscopic lymphadenectomy for colorectal cancer and improve their own technique
• Describe a variety of specimen extraction techniques and colorectal anastomosis and improve their own technique
• Understand the new surgical approaches for rectal TME
• Apply this new understanding to their own practice

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30AM</td>
<td>Introduction</td>
<td>John Marks, MD</td>
</tr>
<tr>
<td>7:35AM</td>
<td>Critical Anatomy and Relationships: The Key to Successful Surgery</td>
<td>Fabrizio Luca, MD</td>
</tr>
<tr>
<td>7:47AM</td>
<td>Barriers to Adoption/Benefits of Standardization of Procedures</td>
<td>Tan Arulampalam, MD</td>
</tr>
<tr>
<td>7:59AM</td>
<td>Right Colon Hurdles: Problem areas, order of attack, middle colics</td>
<td>Conor Delaney, MD, PhD</td>
</tr>
<tr>
<td>8:11AM</td>
<td>Splenic Flexure Mobilization: Medial, lateral and lesser sac approaches</td>
<td>Armando Melani, MD</td>
</tr>
<tr>
<td>8:23AM</td>
<td>IMA/IMV: Various techniques and approaches</td>
<td>Michael Stamos, MD</td>
</tr>
<tr>
<td>8:35AM</td>
<td>Intracorporeal Anastomosis: Right and left colon</td>
<td>Morris Franklin, Jr MD</td>
</tr>
<tr>
<td>8:47AM</td>
<td>How to Improve the Quality and the Results of the Laparoscopic Colorectal Anastomosis</td>
<td>Kirk Ludwig, MD</td>
</tr>
<tr>
<td>9:00AM</td>
<td>Discussion</td>
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<tr>
<td>9:30AM</td>
<td>Break</td>
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</tr>
<tr>
<td>9:50AM</td>
<td>Laparoscopic Rectal TME with or without Robotic Tools: Benefits for patients, surgeons, hospital and/or health system?</td>
<td>John Marks, MD</td>
</tr>
<tr>
<td>10:02AM</td>
<td>Extended or Partial Lymphadenectomy in Rectal Cancer: Techniques and indications. Sentinel nodes? Local excision?</td>
<td>Ronan Cahill, MD</td>
</tr>
<tr>
<td>10:14AM</td>
<td>Single Port in Colorectal Surgery: Armamentarium, Techniques, Indications and Results</td>
<td>Daniel Geisler, MD</td>
</tr>
<tr>
<td>10:26AM</td>
<td>From Multiport to Single Port Laparoscopic with and without Robotic Assistance – Sigmoidectomy with Transanal Specimen Extraction: Techniques, Indications and Results</td>
<td>Vincent Obias, MD</td>
</tr>
<tr>
<td>10:38AM</td>
<td>Natural Orifice Specimen Extraction (NOSE) in Colorectal Surgery: Techniques and indications. Transanal and transvaginal</td>
<td>John Monson, MD</td>
</tr>
<tr>
<td>10:50AM</td>
<td>Endoluminal Surgery: The feasibility and Techniques of Incisionless Surgery</td>
<td>Matthew Albert, MD</td>
</tr>
<tr>
<td>11:02AM</td>
<td>NOTES - Applications for the Colon: Preperitoneal or Progressing?</td>
<td>Antonio Lacy, MD</td>
</tr>
<tr>
<td>11:14AM</td>
<td>Progress - Transanal TME with Colonal Anastomosis Without Transabdominal Assistance: Dream or Reality?</td>
<td>Joel Leroy, MD</td>
</tr>
</tbody>
</table>

LEARNING THEME
C Colorectal
NS New technologies/skills acquisition

GUIDELINES
• Laparoscopic Resection of Curable Colon and Rectal Cancer

SAGES acknowledges educational grants in support of this course from Covidien and Stryker Endoscopy

SAGES Goes Green!
In our continuing effort to support the environment, you will see less paper at the SAGES 2013 Annual Meeting. The printed Final Program will include the regular schedule and course/panel outlines, as well as oral abstracts, Poster of Distinction abstracts and poster listing. However, electronic copies of all the abstracts, digital posters, and Postgraduate course syllabi will be available on-line for all attendees and in the SAGES 2013 Meeting App.

Go to sages2013.org for more information.
SAGES 2013 Awards Ceremony during the SAGES Foundation Awards Luncheon

Welcome and Introductions – Bruce Schirmer, MD

2013 Career Development Award & Research Grant Winners
Presented by: Aurora Pryor, MD, Research Committee Chair & Representatives of Supporting Companies

Career Development Award
The Career Development Award Winner will be announced during the SERF luncheon. This award is supported by the SAGES Education and Research Foundation.

SAGES 2013 Research Grant Awards:

Recipient: Lindsay Kuo, MD
Institution: University of Pennsylvania
Title: Understanding Variation in Utilization and State Spending
Supported by Karl Storz Endoscopy

Recipient: Yuri Novitsky, MD
Institution: University Hospitals Case Medical Center
Title: Local Genetic Modulation of Lower Esophageal Sphincter and Diaphragm Crura for the Treatment of Gastric Esophageal Reflux Disease
Supported by Karl Storz Endoscopy

Recipient: Joel Bradley, MD
Institution: Carolinas Medical Center
Title: Is Night Float a Better Solution than Traditional Call?
Supported by SAGES Foundation

Recipient: Jaime Cavallo, MD
Institution: Washington University School of Medicine in Saint Louis
Title: A Multi-Institutional Randomized Controlled Trial to Evaluate the Comparative Effectiveness of Permanent Synthetic Mesh Versus Biologic Mesh in Clean-Contaminated and Contaminated Ventral Hernia Repair
Supported by SAGES

SAGES Young Researcher Award
Presented by: Aurora Pryor, MD, Research Committee Chair & Representative from Olympus

Recipient: Patricia Sylla, MD

This award is designated for a young member of SAGES who is within five years of completion of residency or fellowship training, but not currently in a residency or fellowship program. The winner must demonstrate significant clinical and/or basic science research, publication or presentation at national meetings, and dedication to an academic career.

Dr. Sylla is Assistant Professor in Surgery, Harvard Medical School, Boston, and Assistant in Surgery Massachusetts General Hospital, Department of Surgery, Boston, MA

Every born researcher has a story. Dr. Sylla’s began while she was working as a resident with David Rattner. She joined the NOTES research group and was given the task of developing a NOTES transanal approach to diseases of the colon and rectum. She took up the challenge and not only succeeded in completing the project but became an international leader in this area. While still in fellowship, she was awarded a SAGES IRCAD travel fellowship award and a NOSCAR research grant for her work on NOTES colorectal resection. Dr. Sylla joined the Massachusetts General Hospital Surgery staff in July 2008. Her clinical practice specializes in minimally invasive approaches to colorectal diseases, with focus on endoscopy and laparoscopy applied to rectal cancer. Dr. Sylla has refined her technique of NOTES transanal endoscopic rectosigmoid resection first in a non-survival swine model, and demonstrated the safety of this approach in a swine survival study. She then reproduced the same technique in human cadavers, and recently published the results in a large cadaver series. Based on this experimental work, the first human transanal NOTES resection of a rectal cancer was performed in November 2009 in collaboration with colleagues in Barcelona. This remarkably rapid translational process has led the first IRB-approved pilot study of laparoscopy-assisted transanal endoscopic resection.
of rectal cancer in the US, for which Dr. Sylla served as the principal investigator. Dr. Sylla’s pioneering work has also inspired world-wide interest in this novel approach to rectal cancer resection.

Since 2008, Dr. Sylla has published five first author and two senior author manuscripts in this field, as well as two book chapters. This work has been presented at 9 national meetings, and she has been invited as faculty at 15 national and 16 international conferences. She was invited to serve as the transanal endoscopic surgery workshop course director 2 years in a row at the annual ASCRS (American Society of Colon and Rectal Surgery). She has received three additional grants as the principal investigator. She received a 4-year Physician Scientist Development Award for her project “NOTES Transanal Rectosigmoid Resection using TEM: Study of Feasibility and Safety in Human Subjects”. She also received a Thematic Priority Grant to support a pilot trial in early rectal cancer patients. Most recently, she received a 2-year Harvard Catalyst Program for Faculty Development and Diversity Fellowship for her project “Transanal Endoscopic Rectosigmoid Resection with Laparoscopic Assistance for Rectal Cancer”. In summary, Dr. Sylla’s accomplishments in a short period of time are remarkable. According to many, she is destined to be one of SAGES future leaders.

SAGES gratefully acknowledges a generous grant in support of this award from Olympus America Inc.

SAGES Researcher in Training Award
Presented by: Aurora Pryor, MD, Research Committee Chair
Recipient: Lawrence Lee, MD

This award is designated for a member of SAGES who is currently a resident or fellow and who shows great promise for a career in academic GI/endoscopic practice or potential for significant contributions to the advancement of minimally invasive or endoscopic surgery.

Dr. Lee is a resident in General Surgery at McGill University. Late in his PGY-2 year he assumed a senior role in call responsibility for the trauma and acute care surgery service and rose admirably to the challenge. He led the trauma team effectively and was lauded by a multi-disciplinary staff with his superior communication skills and mature clinical management decisions. Dr. Lee is known for a superb clinical knowledge base and sound clinical judgment.

In the PGY-3 flexible year, he elected to pursue research under the supervision of Dr. Liane Feldman. Dr. Lee was only one of two surgical residents accepted into the Master’s of epidemiology, intensive thesis program. The Epidemiology Master’s Program had over 1000 applications for only 50 positions. In 2011, he was awarded a provincial research grant exceeding 60 000$ as well as the Canadian Association of General Surgeons’ operating grant. He already has a number of publications since having started his project and a number of oral and poster presentations at both national and international meetings. His research work has led to major awards at the Canadian Surgery Forum, the Canadian Association of Thoracic Surgery and our own McGill research symposia. Dr. Lee has decided to pursue a PhD in experimental surgery. His genuine interest, work ethic and commitment to surgical quality will undoubtedly lead to substantial and important contributions in this field.

McGill has integrated his preoperative assessment lecture into the curriculum permanently. Dr. Lee will pursue fellowship training in laparoscopic and colorectal surgery and hopefully will become a leader in this field.

SAGES IRCAD Traveling Fellowship Award
Presented by: C. Daniel Smith, MD, Awards Committee Chair & Representative from Karl Storz Endoscopy
Recipient: Melanie Lynette Hafford, MD

IRCAD is a private institute, dedicated to the valorization of basic research against cancer and development of less invasive surgical techniques. Since its creation in 1994, IRCAD has gained world renowned fame as a leading research and education institute.

Dr. Hafford is SAGES member since 2010, recently appointed to Educational Resources Committee. Her primary research activity during residency was a multicenter prospective study evaluating Fundamentals of Laparoscopic Surgery (FLS) training as a tool for competency among faculty surgeons. This work was presented at the SAGES 2012 meeting, as well as the American College of Surgeons North Texas 2012 meeting; and has been published in Surgical Endoscopy. Dr. Hafford will attend a two or three day intensive course of her choice.

SAGES gratefully acknowledges Karl Storz Endoscopy for their support of the IRCAD Fellowship Award

SAGES Brandeis Award
Presented by: C. Daniel Smith, MD, Awards Committee Chair
Recipients: John Scott Roth, MD and Don Selzer, MD

The “Executive Leadership Program in Health Policy and Management” at the Heller School for Social Policy and Management at Brandeis University trains clinical leaders in health care policy and management. It aims to provide health care professionals with the skills essential to creating innovative and sustainable solutions to improve the quality, cost-effectiveness, and efficiency of health care service delivery. The purpose of sponsoring attendance to this intensive one-week course scholarship is to promote individuals as leaders in medicine.

SAGES gratefully acknowledges SAGES Foundation for their support of one Brandeis Scholarship Award.
Wednesday, April 17, 2013

SAGES Foundation Margrét Oddsdóttir Award
Presented by: John Hunter, MD, SAGES Past President and SAGES Foundation Board Member

Recipient: Jun Yan, MD

The Oddsdóttir Traveling Fellowship honors an international leader in laparoscopic surgery and a beloved member of the SAGES family. Margrét Oddsdóttir was born and grew up in a fishing village on the northwest coast of Iceland. She completed fellowship in laparoscopic surgery at Emory University with John Hunter, was the first advanced laparoscopic surgeon in Iceland and was instrumental in developing the field of minimally invasive surgery in the Nordic countries. Margrét attended SAGES every year, accompanied by as many as 3-10 nurses, residents, medical students and colleagues from Reykjavik. This award is bestowed to a promising international surgeon.

SAGES Foundation Gerald Marks Rectal Cancer Award
Presented by: Bruce Schirmer, MD, SAGES Foundation President

Recipient: Shigeki Yamaguchi, MD

The Gerald Marks Rectal Cancer Award is selected from each year’s submitted abstracts. This award is chosen from the hundreds of abstracts submitted by a special committee of reviewers and given to one individual each year in honor of Dr. Gerald Marks, SAGES first President and Founder.

SAGES Foundation Felicien M. Steichen Surgical Innovation Award
Presented by: Bruce Schirmer, MD, SAGES Foundation President & Representative from Covidien

Recipient: Luigi Manfredi, PhD

The Felicien M. Steichen Surgical Innovation Award, made possible through a generous educational grant from Covidien, is selected from the Emerging Technologies abstracts by a special committee of reviewers and presented to one individual. The goal of this award is to support innovation in gastrointestinal and endoscopic surgery. This one-time award honors the memory of Dr. Steichen and pays tribute to his innovative and analytical approach to medicine.

SAGES Foundation Excellence in Medical Leadership Award
Presented by: Bruce Schirmer, MD, SAGES Foundation President & Representatives from Gore

Recipient: Paresh Shah, MD

This award, generously funded through an unrestricted educational grant from W.L. Gore and Associates, is designated for a surgeon who is within five years of completion of training and no more than 15 years into their career. Its purpose is to optimize one's impact in the medical field so they can deliver sustainable results driven by their capabilities. The scholarship will enable an individual to attend a five-day program in leadership at a major business school. Dr. Shah is currently Vice Chair of Surgery for Quality and Clinical Affairs, Chief of Laparoscopic Services, Lenox Hill Hospital Northshore LIJ Health System.

How do you recognize a potential leader when you see one? Books have been written on this subject, but one way is that a leader tackles the job that is not popular with everyone else and does it successfully. So, we knew about Paresh’s leadership qualities after his stint as SAGES Legislative Issues Chair.

In his own words, “The demands of a leadership position are rapidly changing now. The traditional ‘triple threat’ construct is giving way to new requirements in our evolving healthcare. He believes in “the relentless pursuit of quality both in the process and the outcome of that growth.”

During his time in the research lab, his field of study was the molecular biology of receptor kinetics for TGF-b. His team discovered the type 1 receptor for TGF-b and went on to characterize its receptor activity. That research led to publications in Science and Cell. His clinical activity has focused on 4 major areas all related to minimally invasive surgery; physiology of laparoscopy, Education and skill acquisition, bariatric surgery, and surgical oncology. He was the co-founder of the Bariatric Surgery Program at the Lahey Clinic in 1999 and has been the PI for 2 multi center clinical trials of endoscopic revision after bariatric surgery and that work has been presented at SAGES and published in Surgical Endoscopy.

His other activities in healthcare and administration have been directed in the areas of healthcare policy, reimbursement, and coding.

SAGES Foundation gratefully acknowledges W.L. Gore and Associates for their support of the Excellence in Medical Leadership Award.
Wednesday, April 17, 2013

SAGES Foundation Jeffrey L. Ponsky Master Educator in Endoscopy Award
Presented by: Bruce Schirmer, MD, SAGES Foundation President

Recipient: Choichi Sugawa, MD

When Choichi Sugawa came from Tokyo to Detroit as a young surgeon in 1971, no one could envision that this quiet, mild mannered gentleman would become the “teacher’s teacher” in surgery and one of the world’s leading experts in GI bleeding. From the early years of SAGES, before the laparoscopic revolution, he could be found teaching at almost every flexible endoscopy course we presented. Quietly and with enormous skill, he taught!

Since 1986, as a Professor of Surgery at Wayne State University School of Medicine and Director of Surgical Endoscopy at Detroit Medical Center, Dr. Sugawa has given 346 lectures nationally and internationally. He has been an active member of SAGES, having served on four committees, as well as, serving as Vice President. For two decades he generously shared his knowledge, skills and “tricks of the trade” with resident, fellows and practicing surgeons. Dr. Sugawa also serves on the International Advisory Boards of “Digestive Endoscopy,” and was a member of the Editorial Boards of “Surgical Endoscopy,” the official journal of SAGES. He is a Fellow of the American Surgical Association (ASA), as well the American College of Surgeons (ACS) where in 2006 he was given the Blue Ribbon Award for the Scientific Exhibit of Exceptional Merit at the 92nd Annual Clinical Congress. He is an active member of ASGE and also a member of the American College of Gastroenterology (ACG). He was elected as a first Fellow of American Society for Gastrointestinal Endoscopy (FASGE) in May, 2006.

Dr. Sugawa has had 120 articles published in peer reviewed journals and has written 19 review articles, 31 book chapters and two books. But mostly, after all of this achievement he is a teacher of great knowledge and generosity. We are proud to name him as the 2013 Jeffrey Ponsky Master in Education.

SAGES International Ambassador Award
Presented by: Steven Schwartzberg, MD, MD, SAGES Past-President

Recipient: Manabu Yamamoto, MD, PhD

Director and Chairman, Adachi Kyosai Hospital, Tokyo, Japan

This is a new SAGES award which was established to help recognize SAGES international members who in an enduring way contribute to and support SAGES annual meeting, and/or support SAGES Mission Globally. Many of our international colleagues teach us, teach WITH us, visit SAGES, host SAGES collaborate with us on research. But you think of the SAGES international member who brings us joy, you think Manabu Yamamoto.

Born and education in Japan, Manabu is a general surgeon who was an early adopter of laparoscopic surgery. After doing a fellowship with Greg Stiegmann in Denver from 1990 to 1992 he became an integral part of the SAGES Family.

Since then he has served on SAGES Program Committee, Flexible Endoscopy Committee and International Relations Committee. And although he serves on three editorial boards and as an officer of several leading surgical organization, He is known by all of us for his special work a Director and Chief Singer of SAGES (Society Available Good Enough Singers) Far East.

He has brought us surgical knowledge, friendship, devotion and a sense of humor, often when that was a challenge. We are happy to call him an important member of the SAGES family.

SAGES Excellence In Clinical Care Award
Presented by: C. Daniel Smith, MD, Awards Committee Chair

Recipient: Alfons Pomp, MD

This award is designated for a clinician who is recognized by the surgical/GI community for excellence in patient care and surgical practice and is granted for significant surgical-endoscopic skills, patient care, contributions to community and volunteerism. This award is not given annually.

Dr. Pomp is Chief of Laparoscopy and Bariatric Surgery and the Leon C. Hirsch Professor of Surgery. He is an Attending Surgeon at the New York-Presbyterian Hospital/Weill Cornell Medical Center. Alfons Pomp has contributed in a wide variety of ways to the development of minimally invasive surgery.

He has trained fellows and residents; he has published extensively; he is a well known speaker on foregut and bariatric minimally invasive surgery. But mostly we present this award to him for his superb patient care. His colleagues note that his judgment is astute, his minimally invasive skills are cutting edge, and he is “unmatched in his collegial support.” He makes himself available to help, whether it be with a clinical dilemma or a challenging case.

Dr. Pomp has co-authored papers describing the first laparoscopic pancreaticoduodenectomy and adrenalectomy and was part of a surgical team that described routine use of cholangiography in laparoscopic cholecystectomy, laparoscopic repair of large incisional hernias, the standard approach to laparoscopic splenectomy, and early efforts to master the laparoscopic gastric bypass. He has helped train dozens of fellows many of whom have become leaders of SAGES and the surgical community. He has worked to demonstrate the benefits of surgical treatment of metabolic disorders including diabetes mellitus.
Wednesday, April 17, 2013

SAGES Pioneer in Surgical Endoscopy Award
Presented by: C. Daniel Smith, MD, Awards Committee Chair

Recipient: Joel Leroy, MD FRCS

The award is designated for a person in industry or a physician/surgeon. It is given to an individual, not to a company, and is granted for a significant, long-term scientific or technological contribution to the field of surgical endoscopy. The award will not be given every year, but bestowed when the Board determines a worthy nominee. It is intended for those whose efforts have substantively changed and improved the field of endoscopy.

Dr. Leroy is a Laparoscopic Colo-Rectal Surgeon and the University of Strasburg in France. He is also Scientific Director of IRCAD/EITS (European Institute of Telesurgery).

His contribution to the surgical body of knowledge includes (but is not limited to):

- He performed the world’s first ever Laparoscopic Total Mesorectal Excision in November 1991
- The development of a wide variety of tools and systems which helped to enable the standardization of surgical colorectal procedures
- The development of single port colorectal surgery and Natural Orifice Transluminal Endoscopic Surgery (NOTES) applied to colorectal procedures which introduced new concepts such as PROGRESSS (Peri-Rectal Oncologic Gateway to Retroperitoneal Endoscopic Single-Site Surgery)

Professor Joel Leroy has played a major role in technology transfer as well as education in minimally invasive colorectal surgery.

SAGES Distinguished Service Award
Presented by: W. Scott Melvin, MD, SAGES President

Recipient: David Rattner, MD

The Distinguished Award is designated for an endoscopic surgeon who is a member of SAGES and is granted for a significant, long-term educational, research, clinical and/or technological contribution to the field of surgical endoscopy as well as to SAGES.

David Rattner's CV is 47 pages long. SAGES is mentioned on most of those pages. That is because he has dedicated a great deal of his professional life to SAGES. And we are better for it.

He earned his B.S. from the University of Michigan and in 1978 his M.D. from The Johns Hopkins University School of Medicine. He performed both his internship and Thoracic surgical residency at Massachusetts General Hospital in Boston. Was was a research Fellow at Harvard Since then he has continued his education at Harvard School of Public Health-Leadership.

Words and sentences are meaningless when we outline the work a person has done for an organization. It is simply impossible to draw a chart of dedication, heart, imagination, and enthusiasm on one page. So here is the list of his work for SAGES. It speaks for itself.

- 1995 Committee on Research
- 1996 Committee on Continuing Medical Education
- 1998 - 2000 Chairman, Committee on Continuing Medical Education
- 1998 Development Committee
- 1999 - 2010 Board of Governors
- 1999 - 2011 Publication Committee
- 1999 Government Relations Committee
- 2000 National Meeting Relations
- 2001 - 2005 Executive Committee
- 2001 - 2003 Treasurer
- 2003 President Elect
- 2004 President
- 2005 Chairman Endoluminal and Translumenal Task Force
- 2005 Chairman SAGES/ASGE joint committee on N.O.T.E.S
- 2010 Conflict of Interest Task Force

2013 SAGES International Acknowledgements

SAGES Board of Governor’s and the SAGES Global Affairs Committee would like to acknowledge the following:

BEST INTERNATIONAL PAPER ACKNOWLEDGMENTS
Presented by: Jeffrey Hazey, MD, SAGES Global Affairs Committee Co-Chair

Recipient: Francois Letarte, MD

Abstract: Minimally Invasive Colectomy for Complicated Diverticular Disease in the Emergency Setting: A Safe Choice?

Institution: Hôpital Saint-François d’Assise, CHUQ

Country: Canada

Recipient: Akiyo Matsumoto, MD

Abstract: Laparoscopic versus Open Resection for Colon Cancer Based on 9-year Data: Results of our Hospital Study in 1065 Patients.

Institution: Tsuchiura Kyodo General Hospital

Country: Japan
Wednesday, April 17, 2013

Go Global Researcher Award
Presented by: Horacio Asbun, MD, SAGES Global Affairs Committee Chair

Recipient: Virinder Basal, MD
Abstract: Prospective Randomized Controlled Blinded Study to Evaluate the Effect of Short Term Focused Training Program in Laparoscopy on Operative Room Performance of Surgery Resident.
Institution: All India Institute of Medical sciences, New Delhi
Country: India

Recipient: Bora Koc, MD
Abstract: Comparison of Laparoscopic Common Bile Duct Exploration and ERCP/S LC for Choledocholithiasis: A Prospective Randomized Study
Institution: Okmeydan Training and Research Hospital
Country: Turkey

Recipient: Long Tran Cong Duy, MD
Abstract: Laparoscopic Liver Resection for Hepatocellular Carcinoma, 5 year experience
Institution: University Medical Center, Hochiminh City
Country: Vietnam

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Wednesday, April 17, 2013

Postgraduate Course: SAGES/AAES – MIS Endocrine: Controversial Topics in MIS Endocrine Surgery

Session Chair: W. Barry Inabnet, MD; Session Co-Chair: L. Michael Brunt, MD

SESSION DESCRIPTION
This session will focus on several current controversies in endocrine surgery: the increasing role of robotic thyroidectomy in the management of patients with thyroid nodules and papillary thyroid cancer, the extent of parathyroid exploration in patients with primary hyperparathyroidism, and the appropriateness of a laparoscopic approach to resection of suspected adrenal cortical carcinoma. The course will conclude with a panel discussion of several challenging endocrine surgical cases.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
• Review the advantages and disadvantages of robotic vs open thyroidectomy
• Identify benefits and risks of a uniglandular vs bilateral four gland exploration for primary hyperparathyroidism
• Understand the controversies of open vs laparoscopic approaches for resection of adrenal cortical carcinoma
• Discuss diagnostic and therapeutic management strategies for different endocrine neoplasms

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>1:30PM</td>
<td>Debate 1: Robotic vs Open Thyroidectomy</td>
<td>Woong Young Chung, MD</td>
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<tr>
<td>1:42PM</td>
<td>Why Robotic Thyroidectomy Is the Future</td>
<td>Miguel Herrera, MD</td>
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<tr>
<td>1:55PM</td>
<td>Debate 2: Uniglandular vs Routine Four Gland Parathyroid Exploration</td>
<td>Michael Yeh, MD</td>
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<tr>
<td>2:07PM</td>
<td>Focused Parathyroidectomy Is Preferred</td>
<td>Allan Siperstein, MD</td>
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<tr>
<td>2:20PM</td>
<td>Debate 3: Open vs Laparoscopic Resection for a 4cm Suspected Adrenal Cortical Carcinoma</td>
<td>Dimitrios Linos, MD</td>
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<tr>
<td>2:32PM</td>
<td>The Laparoscopic Approach Is Preferred</td>
<td>Quan-Yang Duh, MD</td>
</tr>
<tr>
<td>2:45PM</td>
<td>Challenging Endocrine Case Presentations</td>
<td>Panelists</td>
</tr>
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LEARNING THEME
HPB 50 HPB/Solid Organ
Hands-On Course: Bariatric Surgery

Session Chair: Dean Mikami, MD; Session Co-Chair: Kenric Murayama, MD

SESSON DESCRIPTION
The hands on portion of the Bariatric Surgery Postgraduate Course will focus on the technical aspects of laparoscopic sleeve gastrectomy, gastric banding with/without plication, gastric bypass and gastric plication.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

• Understand the principles in laparoscopic sleeve gastrectomy that may improve outcomes and lessen the chance of leaks
• Perform and apply the principle that may improve outcomes in laparoscopic sleeve gastrectomy
• Understand and apply the principles of gastric plication with and without adjustable gastric banding
• Identify technical pitfalls of sleeve gastrectomy and gastric bypass and adjustable gastric banding
• Define gastric plication with and without gastric banding and distinguish the appropriate patients in which to utilize this technique

SESSION OUTLINE

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<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tr>
<td>1:30PM</td>
<td>Introduction</td>
<td>Dean Mikami, MD</td>
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<tr>
<td>1:35PM</td>
<td>Lab: 12 Animate Stations, 3 participants, 1 faculty member per station</td>
<td>Kenric Murayama, MD</td>
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<tr>
<td>5:30PM</td>
<td>Conclude</td>
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Lab Faculty:
Stacy Brethauer, MD     Jon Gould, MD     Samer Mattar, MD     Sabrena Noria, MD PhD
Bipan Chand, MD         Valerie Halpin, MD  Carol McCloskey, MD  Dana Portenier, MD
Manoel Galvao Neto, MD  Shanu Kothari, MD  Bradley Needleman, MD  Kevin Reavis, MD

LEARNING THEME

- B Bariatrics
- NS New technologies/skills acquisition

SAGES acknowledges educational grants in support of this course from Olympus America, Inc. and Stryker Endoscopy
SAGES acknowledges contributions in-kind in support of this course from Allergan, CareFusion, Cooper Surgical, Covidien, Davol Inc., Ethicon Inc., Gore & Associates, Karl Storz Endoscopy, Microline Surgical, Olympus America, Stryker Endoscopy and Teleflex Medical.
Wednesday, April 17, 2013

Hands-On Course: Colorectal

Session Chair: Sonia Ramamoorthy, MD; Session Co-Chair: Alessio Pigazzi, MD

Prerequisite/Registration Requirement:
Participants may register for the course to reserve a space but final registration is contingent upon a letter from the Chair of the Department of Surgery or Program Director stating that the participant will perform 10-20 advanced lap assisted colectomy cases in the coming year. This course is open to residents. Letters must be emailed to vanessa@sages.org.

SESSION DESCRIPTION
This half day hands-on cadaver course will build upon current laparoscopic skills and teach participants to perform standard laparoscopic extended right colectomy, sigmoid and low anterior resection using both a medial to lateral and lateral to medial approaches.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
• Understand of the key steps involved in more complex colorectal procedures such as sigmoid and low anterior resection, extended right colectomy to include transverse, and medial to lateral approaches to both left and right side
• Review and apply successful strategies when approaching complex cases such as diverticulitis, and T4 disease
• Assess common difficulties that are encountered during colorectal cases, bleeding, thermal burn, leak and apply strategies for overcoming them

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tr>
<td>1:30PM</td>
<td>Extended right hemicolectomy</td>
<td>Sonia Ramamoorthy, MD</td>
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<tr>
<td>1:40PM</td>
<td>Left and Sigmoid Colectomy: Lateral to Medial</td>
<td>David Longcope, MD</td>
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<tr>
<td>1:50PM</td>
<td>Left and Sigmoid Colectomy: Medial to Lateral</td>
<td>Scott Steele, MD</td>
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<tr>
<td>2:00PM</td>
<td>Low Anterior Resection</td>
<td>Alessio Pigazzi, MD</td>
</tr>
<tr>
<td>2:10PM</td>
<td>Complications</td>
<td>Sharon Stein, MD</td>
</tr>
</tbody>
</table>

Lab Faculty:
Elisa Birnbaum, MD  Jennifer Lowney, MD  Nathan Richards, MD  John Park, MD
Lori Gordon, MD  Lisa McLemore, MD  Scott Steele, MD  James Thiele, MD
David Longcope, MD  Vincent Obias, MD  Sharon Stein, MD  Patricia Sylla, MD

LEARNING THEME
C Colorectal
NS New technologies/skills acquisition

SAGES acknowledges educational grants in support of this course from Covidien, Ethicon Endo-Surgery, Olympus America, Inc. and Stryker Endoscopy

SAGES acknowledges contributions in-kind in support of this course from Covidien, Davol Inc., Ethicon Endo-Surgery, Ethicon Inc., Karl Storz Endoscopy, Microline Surgical, NeoSurgical, Olympus America, Stryker Endoscopy and Xodus Medical.
Wednesday, April 17, 2013

*SAGES/AHPBA Panel: Minimally Invasive HPB: We Can Do It, Now What?*

**Session Chair:** Horacio J Asbun, MD; **Session Co-Chair:** David Mahvi, MD

**SESSION DESCRIPTION**
This session will focus on contrasting minimally invasive and open resection of the liver and pancreas. Experts will discuss both the current data as well as technical aspects of these surgical procedures.

**SESSION OBJECTIVES**
At the conclusion of this session, participants will be able to:
- Have a better understanding of the current outcomes in minimally invasive HPB surgery
- Better assess which patient may benefit from the open and which from the laparoscopic approach
- Assess which are the difficult technical steps in the laparoscopic approach, how to do them safely, when to convert to open

**SESSION OUTLINE**

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30PM</td>
<td>Complications of Open Pancreas Surgery: Current data</td>
<td>David Mahvi, MD</td>
</tr>
<tr>
<td>1:43PM</td>
<td>Complications of Laparoscopic Pancreas Surgery: Current data</td>
<td>Craig P. Fischer, MD</td>
</tr>
<tr>
<td>1:56PM</td>
<td>Difficult technical steps and technical mishaps during Laparoscopic Pancreas Surgery: How to? How not to?</td>
<td>Horacio J. Asbun, MD</td>
</tr>
<tr>
<td>2:10PM</td>
<td>Panel Discussion - Pancreas – Moderated by Dr. Mahvi</td>
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</tr>
<tr>
<td>2:30PM</td>
<td>Outcomes of Laparoscopic Liver Surgery: Current status</td>
<td>David Geller, MD</td>
</tr>
<tr>
<td>2:43PM</td>
<td>Liver surgery: When to Do it Open When to Do it Laparoscopic, When Hybrid?</td>
<td>Go Wakabayashi, MD</td>
</tr>
<tr>
<td>2:56PM</td>
<td>Difficulties in Laparoscopic Liver Surgery in Presence of Liver Cirrhosis: How to? How Not to?</td>
<td>Ho-Seong Han, MD</td>
</tr>
<tr>
<td>3:10PM</td>
<td>Panel discussion - Liver – Moderated by Dr. Asbun</td>
<td></td>
</tr>
</tbody>
</table>

**LEARNING THEME**
HPB SO HPB/Solid Organ
**Pre-, Intra-, Post-Operative Management of CBD Stones**

Session Chair: Jeffrey W. Hazey, MD; Session Co-Chair: Joseph Petelin, MD

**SESSION DESCRIPTION**

This panel session will concentrate on the wide variability that exists in the management of common bile duct stones. We will attempt to provide both quality of care and cost data to argue the optimal management of known or discovered common bile duct stones using a wide variety of diagnostic and therapeutic maneuvers.

**SESSION OBJECTIVES**

At the conclusion of this session, participants will be able to:

- Understand the timing of diagnostic and therapeutic modalities that optimize quality of care, minimize length of stay and decrease cost
- Perform the optimal diagnostic and therapeutic maneuvers to improve patient care
- Understand which diagnostic and therapeutic techniques optimize patient outcome minimizing morbidity and length of stay

**SESSION OUTLINE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30PM</td>
<td>Introduction</td>
<td>Jeffrey W. Hazey, MD</td>
</tr>
<tr>
<td>1:35PM</td>
<td>Pre-op Evaluation: Identifying Patients at Risk and Making the Diagnosis</td>
<td>Joseph Petelin, MD</td>
</tr>
<tr>
<td>1:50PM</td>
<td>Gastroenterologist and EUS</td>
<td>Jon Walker, MD</td>
</tr>
<tr>
<td>2:05PM</td>
<td>Appropriate Use and Timing of ERCP</td>
<td>Jose Martinez, MD</td>
</tr>
<tr>
<td>2:20PM</td>
<td>CBDs in the Post RYGB Patient (ERCP and PTC)</td>
<td>Keith Gersin, MD</td>
</tr>
<tr>
<td>2:35PM</td>
<td>Open and LS CBDE</td>
<td>Raymond Onders, MD</td>
</tr>
<tr>
<td>2:50PM</td>
<td>Cost Analysis – What is the Most Cost Effective Way to Manage CBDS</td>
<td>Jeffrey Hazey, MD</td>
</tr>
<tr>
<td>3:05PM</td>
<td>Outcomes – Which Algorithm Gives the Best Outcomes</td>
<td>Jeffrey Marks, MD</td>
</tr>
<tr>
<td>3:15PM</td>
<td>Panel Discussion – Q&amp;A</td>
<td></td>
</tr>
</tbody>
</table>

**LEARNING THEME**

- Professional/Economic
- HPB | SO | HPB/Solid Organ
- FE | Endo

**GUIDELINES**

- Clinical Application of Laparoscopic Biliary Tract Surgery
- Training in Diagnostic and Therapeutic Endoscopic Retrograde Cholangiopancreatography (ERCP)
- Role of Endoscopy in the Bariatric Surgery Patient – ASGE Guideline co-endorsed by SAGES
- Diagnostic Laparoscopy

---

**FES Testing, FLS Testing, and FUSE Beta Testing Available!**

**Wednesday, April 17 - Friday, April 19, 2013**

For more details or to schedule your test:
- Fundamentals of Endoscopic Surgery™ - info@fesprogram.org
- Fundamentals of Laparoscopic Surgery™ - fls@sages.org
- Fundamental Use of Surgical Energy™ - info@fuseprogram.org
Wednesday, April 17, 2013

Postgraduate Course: Optimizing Outcomes of Ventral and Inguinal Hernia Repairs

Session Chair: Bruce Ramshaw, MD; Session Co-Chair: David Earle, MD

SESSION DESCRIPTION
This session is designed to assist practicing general, trauma, and/or plastic surgeons improve outcomes of simple and complex abdominal wall reconstruction. Rather than memorizing a list of techniques and prosthetics, this will be done by learning fundamental building blocks to the entire cycle of care of for hernia patients that will allow surgeons to apply this knowledge immediately to their practice in order to customize each hernia repair.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
• Identify the best technique and prosthesis for each unique patient
• Offer a wider variety of options for hernia repair, and utilize referral when necessary
• Utilize short suture technique to close laparotomy incision, and lower incisional hernia rates from 18% to 5%
• Utilize mesh during creation of ostomies for prevention of parastomal hernia
• Repair parastomal hernia with a consistent technique
• Utilize a succinct management strategy for the “open abdomen” that results in a high rate of closure at discharge

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:30PM</td>
<td>Introduction to hernia outcomes and clinical quality improvement: application to hernia disease</td>
<td>Benjamin Poulouse, MD</td>
</tr>
<tr>
<td>3:40PM</td>
<td>Prevention of Incisional Hernia - Effect of Stitch Length on Wound Complications after Closure of Midline Incisions and prevention of Parastomal Hernia – Use of prophylactic prosthetic</td>
<td>Michael Rosen, MD</td>
</tr>
<tr>
<td>3:50PM</td>
<td>Customizing Hernia Repair – Choosing the Best Technique and Prosthetic for Each Patient - Inguinal Hernia</td>
<td>Brian Jacob, MD</td>
</tr>
<tr>
<td>4:00PM</td>
<td>Customizing Hernia Repair – Choosing the Best Technique and Prosthetic for Each Patient - Ventral Hernia</td>
<td>David Earle, MD</td>
</tr>
<tr>
<td>4:15PM</td>
<td>Customizing Hernia Repair – Choosing the Best Technique and Prosthetic for Each Patient- Parastomal and Other Atypical Ventral Hernias</td>
<td>B. Todd Heniford, MD</td>
</tr>
<tr>
<td>4:30PM</td>
<td>Developing a Management Protocol for the Open Abdomen and Complex Abdominal Wall Repair</td>
<td>Scott Cinelli, DO</td>
</tr>
<tr>
<td>4:45PM</td>
<td>Understanding How Hospitals Choose Hernia Mesh and Other Complex Hernia Problems: Applying Complexity Science to a Hernia Program</td>
<td>Bruce Ramshaw, MD</td>
</tr>
<tr>
<td>5:00PM</td>
<td>Interactive Discussion: Improving Hernia Outcomes</td>
<td>All speakers</td>
</tr>
</tbody>
</table>

LEARNING THEME
• Hernias
• Professional/Economic

GUIDELINES
• Laparoscopic Ventral Hernia Repair – forthcoming in 2013
SAGES/JSES Panel: Endoscopic Management of GEJ Disease - Dysplasia & Barrett’s

Session Chair: Jeffrey Marks, MD; Session Co-Chair: Haruhiro Inoue, MD

SESSION DESCRIPTION
This two-hour session includes presentations on the classification, diagnosis, surveillance, and treatment alternatives for Barrett’s esophagus. Endoscopic and surgical alternatives will be discussed by GI and surgical experts.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

• Define the classification criteria for Barrett’s esophagus
• Understand the appropriate pattern for endoscopic surveillance of Barrett’s esophagus
• Describe the endoscopic and surgical alternatives for management of Barrett’s esophagus

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:30PM</td>
<td>Introduction</td>
<td>Jeffrey Marks, MD</td>
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<tr>
<td></td>
<td></td>
<td>Haruhiro Inoue, MD</td>
</tr>
<tr>
<td>3:35PM</td>
<td>Classification and Imaging in Barrett’s Esophagus</td>
<td>Eric Pauli, MD</td>
</tr>
<tr>
<td>3:55PM</td>
<td>Endoscopic Surveillance, How and How Long?</td>
<td>Jeffrey Marks, MD</td>
</tr>
<tr>
<td>4:15PM</td>
<td>Preventive Ablation: Does it Work?</td>
<td>Brian Dunkin, MD</td>
</tr>
<tr>
<td>4:35PM</td>
<td>Techniques of Endoscopic Tissue Resection</td>
<td>Haruhiro Inoue, MD</td>
</tr>
<tr>
<td>4:55PM</td>
<td>Surgical Treatment: Indications and Outcome</td>
<td>Lee Swanstrom, MD</td>
</tr>
<tr>
<td>5:15PM</td>
<td>Panel Discussion/Case Presentations</td>
<td></td>
</tr>
</tbody>
</table>

LEARNING THEME

- FE Flex Endo
- FOR Foregut
- NS New technologies/skills acquisition
Complications

Session Chair: Thadeus Trus, MD; Session Co-Chair: Todd Ponsky, MD

SESSION DESCRIPTION
The session will address the recognition and management of common complications encountered in general surgery. The focus will be primarily tips and tricks for management and will be followed by case presentations and discussion period.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
• List at least 3 approaches to the management of staple line leaks following bariatric surgery
• Recognize mesh infection following laparoscopic hernia repair
• Understand and avoid the common situations leading to operating room fire

SESSION OUTLINE * Each talk is 10 min with 5 min Q&A following

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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</thead>
<tbody>
<tr>
<td>3:30PM</td>
<td>Management of Laparoscopic Access Problems (Bowel Injury, Vasc Injury, Trocar Site Bleeding etc)</td>
<td>Tim Farrell, MD</td>
</tr>
<tr>
<td>3:45PM</td>
<td>Management of Dysphagia After Fundoplication</td>
<td>Brant Oelschlager, MD</td>
</tr>
<tr>
<td>4:00PM</td>
<td>Management of Leaks After Bariatric Surgery</td>
<td>Bryan Sandler, MD</td>
</tr>
<tr>
<td>4:15PM</td>
<td>How to Manage Bleeding During Laparoscopic Surgery</td>
<td>Gina Adrales, MD</td>
</tr>
<tr>
<td>4:30PM</td>
<td>Management of Mesh Infections or Pain After Hernia Repair</td>
<td>Brent Matthews, MD</td>
</tr>
<tr>
<td>4:45PM</td>
<td>Fires and Burns in the Operating Room</td>
<td>Pascal Fuchshuber, MD</td>
</tr>
<tr>
<td>5:00PM</td>
<td>Put the Panel on the Spot: Difficult Cases and Disastrous Situations (Encourage Audience Participation)</td>
<td>Faculty Panel</td>
</tr>
</tbody>
</table>

LEARNING THEME
• PE Professional/Economic
• HR Hernias
• B Bariatrics
• FOR Foregut

GUIDELINES
• Clinical Application of Laparoscopic Bariatric Surgery
• Surgical Treatment of Gastroesophageal Reflux Disease (GERD)
• Diagnostic Laparoscopy

Welcome Reception in Exhibit Hall
Free to all paid registrants & guests

Exhibit Hall E

Be sure to visit these new exhibitions during Exhibit Hours!

007 NEW TECHNOLOGY EXHIBITION
Located in the 900 Aisle, exhibitors in this area will highlight the newest (non-FDA-approved) products and technologies from around the world.

CENTERS OF EXCELLENCE EXHIBITION
Also located in the 900 Aisle, exhibitors in this area are a unique group of renowned training centers, where attendees can find out about training opportunities in today's evolving surgical landscape.
<table>
<thead>
<tr>
<th>START</th>
<th>END</th>
<th>SESSION</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>12:00 PM</td>
<td>Half-Day Postgraduate Course: Endolumenal Treatments - GERD and POEM</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>12:00 PM</td>
<td>Half-Day Postgraduate Course: Surgical Techniques for Ventrax Hernias</td>
<td>Room 318</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>9:30 AM</td>
<td>Panel: SAGES/ISL CRS – IBD</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>9:30 AM</td>
<td>Concurrent Session SS1 HPB</td>
<td>Room 327</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>9:30 AM</td>
<td>Concurrent Session SS2 Obesity I</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>03:30 PM</td>
<td>Exhibits, Poster Session, Learning Center Open</td>
<td>Exhibit Hall E</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:00 AM</td>
<td>Coffee Break in Exhibit Hall</td>
<td>Exhibit Hall E</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>12:00 PM</td>
<td>Symposium: SAGES/AL ACE - Surgery South of the Border; What's New?</td>
<td>Room 327</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>12:00 PM</td>
<td>Panel: SAGES/ISL CRS- Colorectal Potpourri</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>12:00 PM</td>
<td>Concurrent Session SS3 Hernia</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>1:00 PM</td>
<td>Educator’s Luncheon - New Paradigms for MIS Training: Is Early Specialization Right For Your Program?</td>
<td>Room 339</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>5:00 PM</td>
<td>Half-Day Hands-On Course: Endolumenal Treatments</td>
<td>Exhibit Hall G</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>5:00 PM</td>
<td>Half-Day Hands-On Course: Strategies for the Complex Abdominal Wall</td>
<td>Exhibit Hall G</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>3:00 PM</td>
<td>Panel: Reoperative Foregut Surgery</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>3:00 PM</td>
<td>Panel: SAGES/ASMBS- Innovative Bariatric Procedures</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>5:00 PM</td>
<td>Symposium: SAGES/ISL CRS/ASCRS- Optimizing Outcomes in Rectal Cancer</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>3:30 PM</td>
<td>Happy (Half) Hour Break in Exhibit Hall</td>
<td>Exhibit Hall E</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>5:00 PM</td>
<td>Panel: NOTES Videos</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>4:30 PM</td>
<td>Panel: Humanitarianism</td>
<td>Room 339</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>5:30 PM</td>
<td>Dr. George Berci Film Debut</td>
<td>Room 339</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>5:00 PM</td>
<td>Ultimate SAGES Competition - Qualifying Round Testing for Residents</td>
<td>Room 330</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>6:30 PM</td>
<td>SERF Cocktail Reception</td>
<td>Room 343</td>
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<td></td>
<td></td>
<td><strong>Industry Education Evening Events - these events are not accredited by SAGES for CME</strong></td>
<td></td>
</tr>
<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Baxter Healthcare: Techniques and Biologic Technologies in Bariatric and HBP Surgery</td>
<td>Room 337</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Davol Inc.: Patient-Focused Approach to Technique and Mesh Selection in Hernia Repair</td>
<td>Room 327</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Intuitive Surgical: I’m an Advanced Laparoscopic Surgeon...And Now is the Time for Robotics</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Stryker Endoscopy: Smaller and Smarter: Needlescope Surgery</td>
<td>Room 318</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Torax Medical Inc.: Revitalizing the Surgeons’ Role in Reflux Disease</td>
<td>Ballroom II</td>
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</tbody>
</table>
Postgraduate Course: Endolumenal Treatments - GERD and POEM

Session Chair: Brian J. Dunkin, MD; Session Co-Chair: Jose M. Martinez, MD

SESSION DESCRIPTION

This course will present the latest strategies and data for the endolumenal management of gastroesophageal reflux disease (GERD) and its complications, as well as achalasia with the use of per oral endoscopic myotomy (POEM). This didactic session is the companion program to the hands-on course offered the same day.

SESSION OBJECTIVES

At the conclusion of this session, participants will be able to:

• Compare FDA approved endolumenal treatments for GERD to laparoscopic surgery approaches for effectiveness and durability
• Discuss how radiofrequency (RF) ablation and endoscopic submucosal dissection (EMR) have changed the standard of care for managing dystrophic Barrett’s Esophagus
• Describe the essential steps of performing POEM
• Compare the results of POEM to Heller myotomy

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30AM</td>
<td>This Is Why We Do Flexible Endoscopy</td>
<td>Brian J. Dunkin, MD</td>
</tr>
<tr>
<td>7:35AM</td>
<td>The Stretta Procedure – What’s The Real Data?</td>
<td>Steve Schwartzberg, MD</td>
</tr>
<tr>
<td>8:00AM</td>
<td>Transoral Incisionless Fundoplication (TIF) – Is This Procedure Here To Stay?</td>
<td>Erik Wilson, MD</td>
</tr>
<tr>
<td>8:30AM</td>
<td>Antireflux Surgery With Less Morbidity</td>
<td>Tom DeMeester, MD</td>
</tr>
<tr>
<td>9:00AM</td>
<td>Endolumenal Ablation And Resection Of Barrett’s - How Have These Methods Transformed Treatment?</td>
<td>Vic Velanovich, MD</td>
</tr>
<tr>
<td>9:30AM</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>9:45AM</td>
<td>Per Oral Endoscopic Myotomy (POEM) - How I Do It</td>
<td>Haruhir Inoue, MD</td>
</tr>
<tr>
<td>10:15AM</td>
<td>What Is The Learning Curve For POEM - Should All Surgeons Be Doing This?</td>
<td>Lee Swanson, MD</td>
</tr>
<tr>
<td>10:45AM</td>
<td>OK, I’ve Got Skills. How Do I Get Started Doing POEM?</td>
<td>Jeffrey Marks, MD</td>
</tr>
<tr>
<td>11:15AM</td>
<td>Future Endolumenal Technologies Surgeons Should Know About</td>
<td>Jeffrey Hazey, MD</td>
</tr>
<tr>
<td>11:45AM</td>
<td>Panel Discussion On POEM Technique And Outcomes And The Future Of Endolumenal Therapies</td>
<td>Haruhir Inoue, MD</td>
</tr>
</tbody>
</table>

LEARNING THEME

FE  Flex Endo
FG  For gut
NS  New technologies/skills acquisition

GUIDELINES

• Surgical Treatment of Gastroesophageal Reflux Disease (GERD)
• Endoluminal Treatments for Gastroesophageal Reflux Disease (GERD)

SAGES acknowledges educational grants in support of this course from Mederi Therapeutics and Olympus America Inc.

“George Berci – Trials, Triumphs, Innovations” Film Debut

Thursday, April 18, 2013 - 4:30pm
Room 339

SERF Reception to follow at 5:30pm in Room 343

Can a man who was once hungry, who dug trenches as a forced laborer, and who was oppressed by a totalitarian Communist regime grow up to change the face of surgery? The answer is “Yes.” The man is George Berci.

More than a year ago SAGES and the SAGES Foundation commissioned a documentary film to be made about the life and medical innovations of George Berci. That film will be shown on Thursday afternoon, April 18th at 4:30 PM in the Room 339.

Michael Brunt, the film’s screenwriter and producer says that “Until I was making this film I had no idea how much Dr. Berci’s work impacted every phase of endoscopic surgery from access, to light, to image. There is no doubt that his ideas and his work changed the face of surgery.”

Please join us as we look at the life and work of a man who has made all of us and all of our patients better for his having survived and imagined a better way to do surgery.
Thursday, April 18, 2013

Postgraduate Course: Surgical Techniques for Ventral Hernias

Session Chair: Michael Rosen, MD; Session Co-Chair: Archana Ramaswamy, MD

SESSION DESCRIPTION
This session will focus on evaluating minimally invasive and open methods of abdominal wall reconstruction. Particular attention will be paid to evaluating the merits of recreating a functional dynamic abdominal wall, the role of biologic and synthetic mesh in abdominal wall reconstruction, and the best method to performing a component separation.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
- Understand the appropriate indications and contraindications for the usage of biologic and synthetic mesh in abdominal wall reconstruction
- Will be able to understand the advantages and limitations of defect closure during abdominal wall reconstruction
- Critically evaluate the various approaches of component separation and develop an evidenced based approach to abdominal wall reconstruction

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30AM</td>
<td>Introduction and Announcements</td>
<td></td>
</tr>
<tr>
<td>7:40AM</td>
<td>Mesh Selection in Ventral Hernia Repair: Do We Have Any Answers?</td>
<td>Sharon Bachman, MD</td>
</tr>
<tr>
<td>8:10AM</td>
<td>Laparoscopic Ventral Hernia Repair Debates: Routine Defect Closure: It’s A Must!!</td>
<td>Benjamin Poulose, MD</td>
</tr>
<tr>
<td>8:30AM</td>
<td>Laparoscopic Ventral Hernia Repair Debates: Routine Defect Closure: What A Waste Of Time!!</td>
<td>William Cobb, MD</td>
</tr>
<tr>
<td>8:50AM</td>
<td>Laparoscopic Repair Of Flank Hernias: It Gets The Job Done</td>
<td>Archana Ramaswamy, MD</td>
</tr>
<tr>
<td>9:10AM</td>
<td>Open Repair Of Flank Hernias: The Only Way To Do It Right!</td>
<td>Melissa Phillips, MD</td>
</tr>
<tr>
<td>9:30AM</td>
<td>Discussion</td>
<td>Panel</td>
</tr>
<tr>
<td>9:50AM</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>10:00AM</td>
<td>Endoscopic Component Separation - The Only TRUE Minimally Invasive Component Separation</td>
<td>John Scott Roth, MD</td>
</tr>
<tr>
<td>10:30AM</td>
<td>Percutaneous Perforator Sparring Technique - What Every Surgeon Should Do!</td>
<td>George Denoto, MD</td>
</tr>
<tr>
<td>11:00AM</td>
<td>Posterior Component Separation - Wait Till You See This, You'll Love It!</td>
<td>Eric Pauli, MD</td>
</tr>
<tr>
<td>11:25AM</td>
<td>Centers Of Excellence In Hernia Repair: Do They Actually Increase Quality Or Just A Marketing Scam?</td>
<td>Michael Rosen, MD</td>
</tr>
<tr>
<td>11:45AM</td>
<td>Questions/ Wrap Up</td>
<td></td>
</tr>
</tbody>
</table>

LEARNING THEME
- Hernias

GUIDELINES
- Laparoscopic Ventral Hernia Repair – forthcoming in 2013

What’s New in the Exhibit Hall?
In addition to the latest and greatest products and technologies, you will find:
- Centers of Excellence: a unique group of nationally and internationally renowned training centers will be highlighted, where attendees can find out about training opportunities in today’s evolving surgical landscape.
- 007 New Technology Exhibition: this area will highlight the newest (non-FDA-approved) products and technologies from around the world
- Happy (Half) Hour – join exhibitors for a beer and a snack during or after heading back to the sessions! Or, grab a cup of coffee and visit the exhibits during a morning break.
- Exhibit Hall Oasis/Charging Station – stop in for a break while charging phones, computers and tablets, or check email at the internet station.

Exhibit Hours:

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>5:30 - 7:30 pm - Welcome Reception</td>
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<tr>
<td>Thursday</td>
<td>9:30 am - 3:30 pm *Coffee Break 9:30 am - 10:00 am *Happy (Half) Hour 3:00 - 3:30 pm</td>
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</tr>
<tr>
<td>Friday</td>
<td>10:00 am - 4:00 pm *Happy (Half) Hour 3:30 pm - 4:00 pm</td>
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<tr>
<td>Saturday</td>
<td>10:00 am - 1:00 pm *Free lunch for all attendees 12:15 pm - 1:00 pm</td>
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</tbody>
</table>
Thursday, April 18, 2013

SAGES/ISLCRS Panel: IBD
Session Chair: Tonia Young-Fadok, MD; Session Co-Chair: C. Neal Ellis, MD

SESSION DESCRIPTION
This session will examine some of the complex or controversial issues in the surgical management of Crohn’s disease and ulcerative colitis. Issues that affect patient outcomes will be emphasized.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
- Make an informed decision regarding the timing of surgical intervention in patients with Crohn’s disease
- Adopt techniques to preserve sphincter function in patients with complex perianal Crohn’s disease
- Appreciate the role of single incision techniques in selected patients with CD and UC
- Discriminate among the operative options for UC
- Determine when it is appropriate to use mucosectomy vs. stapled anastomosis

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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</thead>
<tbody>
<tr>
<td>7:30AM</td>
<td>Criteria For Surgical Decision-Making: Biologics, Age, Nutrition, Desire For Pregnancy...</td>
<td>Elizabeth Wick, MD</td>
</tr>
<tr>
<td>7:46AM</td>
<td>Peri-Anal Disease: Do Surgeons Ever Make A Difference?</td>
<td>Alessandro Fichera, MD</td>
</tr>
<tr>
<td>8:02AM</td>
<td>Minimalist Surgery: Single Port Access For Crohn’s Disease</td>
<td>Daniel Geisler, MD</td>
</tr>
<tr>
<td>8:18AM</td>
<td>Discussion</td>
<td>Panel</td>
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</tbody>
</table>

ULCERATIVE COLITIS

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30AM</td>
<td>Criteria For Considering 1, 2 Or 3-Stage Procedure</td>
<td>John C. Byrn, MD</td>
</tr>
<tr>
<td>8:46AM</td>
<td>Is Mucosectomy Still Relevant In The Era Of Stapled Anastomoses And QOL?</td>
<td>Giovanna Da Silva, MD</td>
</tr>
<tr>
<td>9:02AM</td>
<td>Minimalist Surgery: Single Incision IPAA</td>
<td>Tonia Young-Fadok, MD</td>
</tr>
<tr>
<td>9:18AM</td>
<td>Discussion</td>
<td>Panel</td>
</tr>
</tbody>
</table>

LEARNING THEME
- Academic/Educational
- New technologies/skills acquisition
- Colorectal

GUIDELINES
- Laparoscopic Resection of Curable Colon and Rectal Cancer

Scientific Session/Concurrent Sessions
(accepted oral & video presentations)

Concurrent Session SS1 HPB
Moderators: Paresh Shah, MD & Ho-Seong Han, MD

S001 IS LAPAROSCOPIC COMMON BILE DUCT EXPLORATION FEASIBLE WITHOUT CHOLEDOCHOSCOPY?  Ahmed A. Elgidei; gastroenterology surgical center, mansoura university

S002 THE DIAGNOSTIC ACCURACY OF TRANSBDOMINAL ULTRASONOGRAPHY NEEDS TO BE CONSIDERED WHEN MANAGING GALLBLADDER POLYPS  Daniel French, Phil Allen, James Ellsmere; Division of General Surgery, QEII Health Sciences Centre, Dalhousie University, Halifax NS

S003 LAPAROSCOPIC VS. OPEN LIVER RESECTION FOR BENIGN AND MALIGNANT SOLID LIVER TUMORS: A CASE MATCHED STUDY  Mohammad Kazem Fallahzadeh, MD, Gazi B. Zibari, MD, FAC, FICS, Alireza Hamidian Jahromi, MD, Quyen Chu, MD, FACS, Runhua Shi, MD, PhD, Hosein Shokohou-Amiri, MD, FACS, FICS; Department of Surgery, Louisiana State University Health Sciences Center-Shreveport

S004 LAPAROSCOPIC LIVER RESECTION FOR HEPATOCELLULAR CARCINOMA, 5 YEAR EXPERIENCE  Long Tran Cong Duy, MD, Bac Nguyen Hoang, MD, PhD, Thuan Nguyen Duc, MD, Dat Le Tien, MD, Viet Dang, MD, HBF Surgery

S005 COMBINED NEAR-INFRARED FLUORESCENCE LAPAROSCOPY OF THE EXTRA-HEPATIC BILE DUCTS AND ARTERIAL ANATOMY: RESULTS OF A FEASIBILITY STUDY  E. m. Schols, MD, N.d. Bouvy, MD, Ph.D, A.a.m. Mascal, MD, PhD, R.m. van Dam, MD, C.h.c. Dejong, MD, PhD, L.p.s. Stassen, MD, PhD; Departments of Surgery and Gastroenterology, Maastricht University Medical Center, The Netherlands

S006 LAPAROSCOPIC HEPATIC RESECTION FOR METASTATIC LIVER TUMOR OF COLORECTAL CANCER: COMPARATIVE ANALYSIS OF SHORT AND LONG TERM RESULTS  Shuichi Iwashashi, Mitsuo Shimada, Tohru Utsumomiya, Satoru Imura, Yuji Morine, Tetsuya Ikemoto, Yusuke Arakawa, Hiroki Mori, Mami Kanamoto, Shinichiro Yamada, Hidenori Miyake; Department of Surgery, Tokushima University

S007 SELECTED TRANSJUGULAR INTRAHEPATIC PORTOSYSTEMIC SHUNT VERSUS LAPAROSCOPIC SPLENECTOMY PLUS ENDOSCOPIC VARICES LIGATION IN THE TREATMENT OF PORTAL HYPERTENSION  Zhong Wu, PhD, Jin Zhou, PhD, Bing Peng, PhD; West China Hospital, Sichuan University
Thursday, April 18, 2013

**V001** PURE LAPAROSCOPIC ANTERIOR SECTIONECTOMY WITH A HANGING MANEUVER  
Go Wakabayashi, MD, Hiroyuki Nitta, MD, Takeshi Takahara, MD, Yasushi Hasegawa, MD, Shojo Kanno, MD, Akira Sasaki, MD; Department of Surgery, Iwate Medical University School of Medicine

**V002** CUTTING OUT THE MIDDLE MAN: LAPAROSCOPIC CENTRAL PANCREATECTOMY  
Rebecca Kowalski, MD, Niket Sonpal, MD, Jennifer Montes, MD, Paresh C Shah, MD; Lenox Hill Hospital, Northshore-LIJ Health System

**V003** LAPAROSCOPIC LONGITUDINAL PANCREATICOJEJUNOSTOMY USING CYSTOSCOPE AND ERCP BASKET FOR RETRIEVAL OF LEFT OVER PANCREATIC DUCT STONES  
Manash Sahoo, Associate, Professor, Anil Kumar, Post, Graduate; Department of Surgery, SCB Medical College

**V004** TOTAL LAPAROSCOPIC PANCREATODUODENECTOMY FOR CANCER  
Thuan Nguyen, MD, Long Tran, MD, Bac Nguyen, MD, Tuan Le Quan, MD, Dat Le, MD; Division of Gastroenterologic and General Surgery, University of Medicine, University Medical Center, Viet Nam

**V005** LAPAROSCOPIC ISOLATED CAUDATE LOBECTOMY FOR HEMANGIOMA  
Juan P Toro, MD, Nathaniel W Lytle, MD, Ankit D Patel, MD, S. Scott Davis, MD, Juan M Sarmiento, MD, Edward Lin, DO; Emory university

**Concurrent Session SS2 Obesity I**

**Ballroom III & IV**

**Moderators:** Ninh Tuan Nguyen, MD & Jon Gould, MD

**S008** BASELINE GLYCATED HEMOGLOBIN LEVELS PREDICT ENDOBARRIER-INDUCED WEIGHT LOSS IN MORBIDLY OBSESE PATIENTS WITH AND WITHOUT TYPE 2 DIABETES  
Rodrigo Munoz, MD, PhD, Angelica Dominguez, Statistician, Cesar Muñoz, MD, Milenko Slake, MD, Dannae Turiel, RN, Cecilia Gomez, RN, Fernando Munoz, MD, Fernando Pimentel, MD, Alan Sharp, MD, Alex Escalona, MD; DEPARTAMENTO DE CIRUGIA DIGESTIVA, ESCUELA DE MEDICINA PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE

**V006** AN UNUSUAL COMPLICATION AFTER REVISIONAL LAPAROSCOPIC GASTRIC BYPASS SURGERY  
Andrew S Wu, MD, Daniel M Herron, MD; Mount Sinai School of Medicine

**S009** PREDICTIVE FACTORS FOR CHOLECYSTECTOMY IN BARIATRIC PATIENTS UNDERGOING MEDICALLY-SUPERVISED WEIGHT LOSS  
Alan Berg, MD, Jean-Claude Gauthier, MD, Fatima Haggar, MPH, PhD, Tinghua Zhang, MSC, Robert Dent, MD, Jean-Denis Yelle, MD, Isabelle Raiche, MD, N’Gai Porte, MD, Joseph Mamazza, MD; Division of General Surgery, the Ottawa Hospital, University of Ottawa, the Ottawa Hospital Research Institute

**V007** CASE REPORT: MASSIVE GASTRO-GASTRIC HERNIATION WITH NECROSIS FOLLOWING GASTRIC PLICATION EMERGENTLY CONVERTED TO SLEEVE GASTRECTOMY  
Paul Cartwright, MD, Howard McColllister, MD, Paul Severson, MD; Minnesota Institute for Minimally Invasive Surgery at the Cuyuna Regional Medical Center

**S010** DECREASES IN ACTIVATED CASPASE-1 LEVELS ARE INTEGRAL TO IMPROVEMENT OF METABOLIC PROFILE AFTER LAPAROSCOPIC BARIATRIC SURGERY: PRELIMINARY REPORT OF CHANGES IN CASPASE-1 AND MITOCHONDRIAL RESPIRATION AFTER LAPAROSCOPIC BARIATRIC SURGERY  
S Nijhawan, MD, Diego Alvarez, MD, PhD, Jon Audia, PhD, William O Richards, MD; University of South Alabama, Mobile, AL

**V008** ENDOLUMINAL BARIATRIC SURGERY POST-GASTRIC BYPASS  
Pornthep Prathanvanich, MD, Bipan Chand, MD; LOYOLA UNIVERSITY CHICAGO STRITCH SCHOOL OF MEDICINE CHICAGO

**S011** LAPAROSCOPIC SLEEV GASTRECTOMY: AN EFFICACIOUS MANAGEMENT OF METABOLIC SYNDROME IN THE MORBIDLY OBSESE  
Joslin Cheverie, MD, FRCSC, Garth R Jacobsen, MD, FACS, Bryan J Sandler, MD, FACS, Juan S Barajas-Gamboa, MD, Leanne Valero, MD, Alisa M Coker, MD, A. Aitor Macias, MD, MPH, Mark A Talimani, MD, FACS, Eduardo Guanvald, MD, Santiago Horgan, MD, FACS; UCSD Center for the Future of Surgery

**S012** SPECIMEN EXTRACTION AFTER LAPAROSCOPIC SLEEVE GASTRECTOMY: NO NEED TO BAG IT  
Eric Boyle, MD, Timothy Kwadada, MD, Dimitrios Stefanidis, MD, PhD, Keith Gersin, MD; Carolinas Medical Center

**V009** REVISION OF GASTROJEJUNOSTOMY FORstenosis  
Ruby Gatschet, MD, Cyrus Moon, MD, Saber Ghiassi, MD, MPh, Keith Boone, MD, Kelvin Higa, MD; Advanced Laparoscopic Surgery Associates, UCSF Fresno

**S013** REVISIONAL BARIATRIC SURGERY: PERIOPERATIVE MORBIDITY IS DETERMINED BY THE TYPE OF PROCEDURE  
Kishore Malireddy, MD, Ryan Phillips, BS, Ewan Zog, BS, Timothy Kwadada, MD, Keith Gersin, MD, Dimitrios Stefanidis, MD, PhD; Carolinas Healthcare System, CMS-Mercy

**S014** COMPARATIVE STUDY OF LAPAROSCOPIC REVISION OF FAILED GASTRIC BANDING TO SLEEVE GASTRECTOMY VERSUS ROUX-EN-Y GASTRIC BYPASS  
Rodrigo Gonzalez, MD, Edwin Bran, MD, Fernando Montufar, MD; Las Americas Private Hospital

**V010** SLEEVE GASTRECTOMY IN A PATIENT WITH SITUS INVERSUS  
Federico Moser, MD, Pablo Maldonado, MD, Veronica Gorodner, A. Alcaraz, MD, Lucio Obeide, MD; Hospital Privado Centro Medico de Cordoba

9:30AM - 10:00AM  
Coffee Break in Exhibit Hall

9:30AM - 3:30PM  
Exhibits, Poster Session, and Learning Center Open

*Included in Registration SuperPass (Option A) or Registration Option B

EXHIBIT HALL E

EXHIBIT HALL E
SAGES/ISLCRS Panel: Colorectal Potpourri

Session Chair: Conor Delaney, MD, PhD; Session Co-Chair: Roger Motson, MD

**SESSION DESCRIPTION**
This session will review a number of topics not covered in other primary sessions. Subjects discussed will include rectal prolapse, management of obesity, emergency surgery, care pathways, and colon cancer.

**SESSION OBJECTIVES**
At the conclusion of this session, participants will be able to:
- Understand the role of using minimally invasive surgery for management of colon cancer
- Recognize ideal management strategies for rectal prolapse, and understand the surgical procedures required
- Be familiar with laparoscopic techniques for emergency surgery and dealing with complexities such as colonic fistula and abscesses

**SESSION OUTLINE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 AM</td>
<td>Laparoscopic Approaches To Rectal Prolapse</td>
<td>Roger Motson, MD</td>
</tr>
<tr>
<td>10:15 AM</td>
<td>Alternative Strategies For Specimen Extraction</td>
<td>Joel Leroy, MD</td>
</tr>
<tr>
<td>10:30 AM</td>
<td>Laparoscopic Colectomy In The Obese</td>
<td>Eric Weiss, MD</td>
</tr>
<tr>
<td>10:45 AM</td>
<td>Laparoscopic Management Of Fistula And Abscess</td>
<td>Tonia Young-Fadok, MD</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>Emergency Laparoscopic Colectomy</td>
<td>Scott Steele, MD</td>
</tr>
<tr>
<td>11:15 AM</td>
<td>Integrating Perioperative Care Pathways With Laparoscopic Colectomy</td>
<td>Conor Delaney, MD, PhD</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>Update On Management Of Colon Cancer</td>
<td>John Marks, MD</td>
</tr>
<tr>
<td>11:45 AM</td>
<td>Panel Discussion</td>
<td>Panel</td>
</tr>
</tbody>
</table>

**LEARNING THEME**
- C Colorectal
- NS New technologies/skills acquisition

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**2013 SAGES Webcast Sessions**

To view the webcast, please visit us at: sages.orlive.com

**Thursday, April 18, 2013**

<table>
<thead>
<tr>
<th>TIME</th>
<th>SESSION</th>
<th>FACULTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 AM - 9:30 AM</td>
<td>Obesity 1 Scientific Session</td>
<td>Ninh Nguyen, MD /</td>
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<td>Jon Gould, MD</td>
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<tr>
<td>10:00 AM - 12:00 PM</td>
<td>Hernia Scientific Session</td>
<td>Adrian Park, MD /</td>
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<td>Sharon Bachman, MD</td>
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<tr>
<td>1:00 PM - 3:00 PM</td>
<td>Panel: Re-Operative Foregut Surgery</td>
<td>Chair: Michael Holzman, MD /</td>
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<td>Co-Chair: Nicole Fearing, MD</td>
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<tr>
<td>3:30 PM - 5:00 PM</td>
<td>Panel: NOTES® Videos</td>
<td>Chair: John Mellinger, MD /</td>
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<td>Co-Chair: Eric Hungness, MD</td>
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**Friday, April 19, 2013**

<table>
<thead>
<tr>
<th>TIME</th>
<th>SESSION</th>
<th>FACULTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 AM - 8:30 AM</td>
<td>Solid Organ Scientific Session</td>
<td>Ken Murayama, MD /</td>
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<td>Manabu Yamamoto, MD</td>
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<tr>
<td>8:30 AM - 10:00 AM</td>
<td>Plenary Session 1</td>
<td>Gerald Fried, MD /</td>
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<td></td>
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<td>Karl Fuchs, MD</td>
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<tr>
<td>10:00 AM - 10:45 AM</td>
<td>Presidential Address: “Journeys”</td>
<td>W. Scott Melvin, MD</td>
</tr>
<tr>
<td>10:45 AM - 11:30 AM</td>
<td>Gerald Marks Lecture: “A Blueprint for Quality and Patient Safety in an Era of Innovation”</td>
<td>E. Christopher Ellison, MD</td>
</tr>
<tr>
<td>11:30 AM - 12:30 PM</td>
<td>Panel: MIS in Pregnancy</td>
<td>Chair: David Brooks, MD /</td>
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<td></td>
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<td>Co-Chair: Danielle Walsh, MD</td>
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<tr>
<td>1:30 PM - 3:30 PM</td>
<td>Foregut Scientific Session</td>
<td>Mark Talamini, MD /</td>
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<td>Sharona Ross, MD</td>
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<tr>
<td>4:00 PM - 5:30 PM</td>
<td>Panel: Acute Care Laparoscopy</td>
<td>Chair: Lena Napolitano, MD /</td>
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<td>Co-Chair: Raymond Onders, MD</td>
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**Saturday, April 20, 2013**

<table>
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<tr>
<th>TIME</th>
<th>SESSION</th>
<th>FACULTY</th>
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<tbody>
<tr>
<td>8:00 AM - 9:30 AM</td>
<td>Advancements in Military Surgery</td>
<td>Chair: Robert Lim, MD</td>
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<td>Co-Chairs: Yong Choi, MD &amp;</td>
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<td>Gordon Wisbach, MD</td>
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<tr>
<td>9:30 AM - 11:30 AM</td>
<td>Plenary Session 2</td>
<td>W. Scott Melvin, MD /</td>
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<td>Desmond Birkett, MD</td>
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</tbody>
</table>
### Scientific Session/Concurrent Sessions

(accepted oral & video presentations)

**Concurrent Session SS3 Hernia**  
**Moderators:** Adrian Park, MD & Sharon Bachman, MD

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
<th>Affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>S015</td>
<td>Economic Evaluation of Hospital Costs Associated with Laparoscopic and Open Inguinal Herniorrhaphy</td>
<td>Fernando Spencer Netto, MD, PhD, FRCS, Bruna Camilotti, MD, Kristen Pitzul, Todd Penner, MD, FRCS, Timothy Jackson, MD, FRCS, Fayez Quereshy, MD, FRCS. Allan Okrainec, MD, FRCS; Toronto Western Hospital, University Healthy Network, University of Toronto</td>
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</tr>
<tr>
<td>S016</td>
<td>Current National Practice Patterns for Management of Ventral Abdominal Wall Hernia: A Population Based Study</td>
<td>Kyle A Perry, MD, Vimal K Narula, MD, Dean J Mikami, MD, W Scott Melvin, MD; The Ohio State University</td>
<td></td>
</tr>
<tr>
<td>V011</td>
<td>Laparoscopic Repair of a Giant Hernia of Morgagni in an Adult</td>
<td>Ajay K Chopra, MD, Aida Taye, MD, Harvey Rainville, MD; Jacobi Medical Center, Albert Einstein College of Medicine, Bronx, NY</td>
<td></td>
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<tr>
<td>S017</td>
<td>A Comparison of Outcomes for Single-Incision Laparoscopic and Traditional 3-Port Laparoscopic Inguinal Herniorrhaphy at a Single Institution</td>
<td>Sharon Monsivais, BA, Hannah Vassaur, MS, PAC, Nicole E Sharp, MD, John Eckford, MD, Rob Watson, MD, Daniel Jupiter, PhD, F. Paul Buckley III, MD; Division of General Surgery, Scott and White Healthcare</td>
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<tr>
<td>S018</td>
<td>Feasibility, Safety and Outcomes of Totally Extra-Peritoneal (TEP) Laparoscopic Hernia Repair in Patients Previously Having Prostatectomy</td>
<td>Philip Le Page, MBBS, hon, Doug Fenton-Lee, AssProf, Ania Smialkowski, Dr, John Morton, Dr; St. Vincent’s Hospital, Sydney</td>
<td></td>
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<tr>
<td>S019</td>
<td>Efficacy and Safety of Mesh in Laparoscopic Surgery for Groin Hernia: Systematic Review and Meta-Analysis</td>
<td>Xueli Jia, MBBS, PhD, Michelle HsinXuan Ting, MBBS, MSc, Kathleen Irvine, BSc, MCLIP, Angus JM Watson, BSc, MB, ChB, FRCSed, Laura Nicol; Department of General Surgery, Ward 4a, Raigmore Hospital, Old Perth Road, Inverness, UK, IV2 3UJ</td>
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<tr>
<td>S020</td>
<td>Recurrence Rate of Paresophageal Hernias at One Year: Synthetic vs. Biologic Mesh</td>
<td>Maria C Michael, MA, MD, Edward Borrazzo, MD; Fletcher Allen Health Care</td>
<td></td>
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<tr>
<td>S021</td>
<td>Evaluation of Laparoscopic Management of Inguinal Hernia Without Peritoneal Sac</td>
<td>P C Munipalle, T Garud, Y K S Viswanath, T Maheswaran; South Tees Hospitals NHS Foundation Trust</td>
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<tr>
<td>S022</td>
<td>Facilitated Delayed Closure of Open Abdomen in Septic Patients Combining Negative Pressure Assisted Closure (NPAC) with a Dynamic Fascial Suture (DFS)</td>
<td>René H Fortelny, MD, Alexander H Petter-Puchner, MD, Simone Gruber-Blum, MD, Andreas Gaderer, MD, Karl S Glaser, MD; Department of General, Visceral and Oncological Surgery, Wilhelminenspital, Vienna Austria</td>
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<tr>
<td>S023</td>
<td>Quality of Life After TAPP Repair Comparing Sports Hernia and Groin Hernia</td>
<td>Gerwin A Bernhardt, MD, Benjamin Molderings, Christian Giessauf, MD, Hans-Jörg Mischinger, MD; Department of Surgery, Medical University of Graz</td>
<td></td>
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<tr>
<td>S024</td>
<td>Role of Dynamic Ultrasound Scan in the Assessment of Groin Prior to Laparoscopic Repair in Patients with Sportsperson's Groin</td>
<td>P C Munipalle, J Dean, T Garud, Y K S Viswanath, T Maheswaran; South Tees Hospitals NHS Foundation Trust</td>
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<tr>
<td>S025</td>
<td>Laparoscopic Component Separation with Bio-Prosthetic Reinforcement: A Single Surgeon's Experience</td>
<td>Ibrahim Daoud, MD, Brian Pellini, MD, Randall Kimball, MD; St. Francis Hospital, Hartford, CT</td>
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</table>
Thursday, April 18, 2013

**SAGES/ALACE – Surgery South of the Border: What's New?**

Session Chair: Diego Camacho, MD; Session Co-Chair: Natan Zundel, MD

**SESSION DESCRIPTION**

This session will empower attendees with the knowledge and skills derived from our colleagues south of the border with regards to managing common surgical diseases as well as complex diseases that are commonplace there and are now becoming increasingly prevalent in North America as our population continues to evolve and diversify.

We will divide the session into two groups, five talks in each group and twenty minutes of questions and answers as a round table.

**SESSION OBJECTIVES**

At the conclusion of this session, participants will be able to:

- Apply a logical approach to uncommon diseases that are becoming increasingly prevalent in N. America
- Become familiar with the unique considerations of hernia disease that is seen outside of N. America
- Appreciate the differences that exist in application of technologies as well as the differential systems issues and practice patterns that exist south of the border
- Understand how to promote better exchange of knowledge between different countries and build more robust programs and systems of health care delivery locally and abroad

**SESSION OUTLINE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00AM</td>
<td>GERD: Medical vs. Surgical Therapy: State of Affairs Down South</td>
<td>Pablo Omelanczuk, MD</td>
</tr>
<tr>
<td>10:10AM</td>
<td>Gps “Great Practice Standards” To Avoid Lost While South Of The Border:</td>
<td>Brian Jacob, MD</td>
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<tr>
<td></td>
<td>Inguinal Hernia Repair Algorithms We Can All Use - Preferred Scenarios To Do</td>
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<td>Open, Tep, Tap</td>
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<tr>
<td>10:20AM</td>
<td>Tropical Diseases Of The Liver In A Developed Country; Infrequent But</td>
<td>Javier Chapochnik Friedmann, MD</td>
</tr>
<tr>
<td></td>
<td>Challenging Surgical Entity</td>
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<tr>
<td>10:30AM</td>
<td>Low Tech, Low Cost, High Performance, Surgical Techniques And Technologies</td>
<td>Homero Rivas, MD</td>
</tr>
<tr>
<td></td>
<td>From Latin America. Creativity At Its Best</td>
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</tr>
<tr>
<td>10:40AM</td>
<td>Discussion, Q&amp;A</td>
<td></td>
</tr>
<tr>
<td>11:00AM</td>
<td>South Of The Border: Pushing New Endoscopic Technologies To The Limits?</td>
<td>Manoel Galva Neto, MD</td>
</tr>
<tr>
<td>11:10AM</td>
<td>Achalasia: Medical Vs. Surgical Vs Endoscopic Therapy – Myths vs Realities</td>
<td>Jeffrey Ponsky, MD</td>
</tr>
<tr>
<td>11:20AM</td>
<td>Surgical Freedom: Balancing Patient Safety Vs. Surgical Innovation</td>
<td>Mark Talamini, MD</td>
</tr>
<tr>
<td>11:30AM</td>
<td>Surgical Combat Against Chagas Disease: The Silent Killer</td>
<td>Alessio Pigazzi, MD</td>
</tr>
<tr>
<td>11:40AM</td>
<td>Discussion, Q&amp;A</td>
<td>Natan Zundel, MD</td>
</tr>
</tbody>
</table>

**LEARNING THEME**

- **AE** Academic/Educational
- **PE** Professional/Economic

**GUIDELINES**

- Diagnostic Laparoscopy
- Surgical Treatment of Esophageal Achalasia
- Surgical Treatment of Gastroesophageal Reflux Disease (GERD)

*Included in Registration SuperPass (Option A) or Registration Option B

ROOM 327
Educator’s Luncheon – “New Paradigms for MIS Training: Is Early Specialization Right For Your Program?”

Session Chair: Michael M. Awad, MD PhD

SESSION DESCRIPTION
Early Specialization Programs in Minimally Invasive Surgery are a new option for residency/fellowship training. This session will discuss the structure of these programs, their potential benefits and challenges, and how to implement them at your institution.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

• Understand the new options and requirements of the American Board of Surgery for flexible training programs
• Design and structure a competency-based early-specialization program in laparoendoscopic surgery

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00PM</td>
<td>Introduction/Overview</td>
<td>Michael M. Awad, MD PhD</td>
</tr>
<tr>
<td>12:05PM</td>
<td>Perspective from the American Board of Surgery</td>
<td>David Mahvi, MD</td>
</tr>
<tr>
<td>12:15PM</td>
<td>Perspective from the Fellowship Council</td>
<td>Bruce Schirmer, MD</td>
</tr>
<tr>
<td>12:25PM</td>
<td>Perspective from a Residency Director</td>
<td>Doug Smink, MD</td>
</tr>
<tr>
<td>12:35PM</td>
<td>Panel discussion</td>
<td></td>
</tr>
</tbody>
</table>

LEARNING THEME
AE Academic/Educational

SAGES acknowledges our Diamond Level Donors for their support of this activity: Covidien, Stryker Endoscopy
Hands-On Course: Endolumenal Treatments

Session Chair: Bryan Sandler, MD; Session Co-Chair: Pablo Omelanczuk, MD

SESSION DESCRIPTION
As endoscopic experience has been recognized by the American Board of Surgery as critical during surgical training, the need to keep up to date with currently available endolumenal treatments and therapeutics has become more significant. This Hands-On course will allow participants to gain valuable experience with the latest endoscopic technologies and techniques to treat gastroesophageal reflux disease (GERD) and its complications as well as in the management of achalasia through the natural orifice technique of per oral endoscopic myotomy (POEM). Current leaders in the field of surgical endoscopy will provide valuable hands-on experience in a lab setting.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

• Identify the latest endoscopic equipment and instruments needed to manage GERD in an endolumenal fashion and those needed to perform per oral endoscopic myotomy (POEM) in the treatment of achalasia
• Discuss the endolumenal techniques required to manage GERD and its complications, evaluate their own skill level in performing these techniques, and apply these techniques when possible in their own practice
• Discuss the techniques required to perform POEM in the treatment of achalasia, evaluate their own skill level in performing these techniques, and determine whether they will add this surgical treatment to their own clinical practice

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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</thead>
<tbody>
<tr>
<td>1:00PM</td>
<td>Introduction/Key Steps</td>
<td>Bryan Sandler, MD</td>
</tr>
<tr>
<td>1:30PM</td>
<td>Hands-On Lab</td>
<td></td>
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<tr>
<td>5:00PM</td>
<td>Lab Conclusion</td>
<td></td>
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</tbody>
</table>

LEARNING THEME
FE Flex Endo
NS New technologies/skills acquisition
FGD Foregut

GUIDELINES
• SAGES Position Statement on Endolumenal Therapies for Gastrointestinal Diseases
• Framework for Post-Residency Surgical Education & Training
• Endoluminal Treatments for Gastroesophageal Reflux Disease (GERD)

LAB STATIONS:
Phase 1 – POEM - Faculty
1. Haruhiro Inoue, MD
2. John Lipham, MD
3. John Romanelli, MD
4. Ozanan Meireles, MD
5. David Earle, MD
6. Karl Fuchs, MD
7. Brian Dunkin, MD
8. Jeffrey Hazey, MD
9. Eric Hungness, MD
10. Yoav Mintz, MD

Phase 2 - GERD - Faculty
1. Jose Martinez, MD
2. Jeffrey Peters, MD
3. C. Daniel Smith, MD
4. Brant Oelschlager, MD
5. Peter Denk, MD
6. Santiago Horgan, MD
7. Jeffrey Hazey, MD
8. Kyle Perry, MD
9. Yoav Mintz, MD

SAGES acknowledges educational grants in support of this course from Boston Scientific and Olympus America, Inc.
SAGES acknowledges contributions in-kind in support of this course from Apollo EndoSurgery, Boston Scientific, Covidien, Davol Inc., EndoGastric Solutions, Erbe, Mederi Therapeutics, Olympus America, Ovesco, Simbionix, Stryker Endoscopy, Torax and Virtual Ports.

To fully comply with ACCME regulations, all SAGES Meeting attendees must have their badge scanned before entering any course or session room in order to receive CME credit for that event.
Thursday, April 18, 2013

Hands-On Course: Ventral Hernia – Strategies for the Complex Abdominal Wall; Laparoscopic and Open

Session Chair: Garth R. Jacobsen, MD; Session Co-Chair: Archana Ramaswamy, MD

SESSION DESCRIPTION
This is a hands-on course where participants will receive instruction by experts in techniques of laparoscopic ventral hernia repair, endoscopic component separation, and open component separation. The course will also provide exposure to the proper utilization of bioprosthetics.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
• Discuss multiple approaches to perform ventral hernia repair
• Describe the technical steps involved in endoscopic component separation
• Describe the technique in performing a laparoscopic ventral hernia repair
• Describe the steps involved in open component separation and Rives Stoppa repair
• Identify the proper use of bioprosthetics

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>1:00PM</td>
<td>Introduction</td>
<td>Garth R. Jacobsen, MD</td>
</tr>
<tr>
<td>1:15PM</td>
<td>1. Endoscopic component separation (unilateral)</td>
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<tr>
<td></td>
<td>2. Laparoscopic ventral hernia repair</td>
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<tr>
<td></td>
<td>3. Open preperitoneal approach</td>
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<tr>
<td></td>
<td>4. Open component separation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Posterior rectus sheath release</td>
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<tr>
<td></td>
<td>b. Flap mobilization and external oblique release</td>
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</tr>
<tr>
<td></td>
<td>c. Placement and fixation of mesh</td>
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<tr>
<td>4:50PM</td>
<td>Wrap up</td>
<td>Archana Ramaswamy, MD</td>
</tr>
</tbody>
</table>

LEARNING THEME
HR Hernias

GUIDELINES
• Laparoscopic Ventral Hernia Repair – forthcoming in 2013

LAB FACULTY
Sharon Bachman, MD                      Kristi Lee Harold, MD                      Stephen McNatt, MD
William Cobb, MD                       William Hope, MD                           Benjamin Poulose, MD
Matthew Goldblatt, MD                  Brian Jacob, MD                             Michael Rosen, MD
Jacob Greenberg, MD                    Brent Matthews, MD

SAGES acknowledges an educational grant in support of this course from Covidien.
SAGES acknowledges contributions in-kind in support of this course from Applied Medical, CareFusion, Covidien, Davol Inc., Ethicon Inc., Gore & Associates, Karl Storz Endoscopy and Stryker Endoscopy.
Thursday, April 18, 2013

1:00PM - 5:00PM

SAGES/ISLCRS/ASCRS Symposium –
Optimizing Outcomes in Rectal Cancer

Session Chair: Steven D. Wexner, MD; Session Co-Chair: Eric Rullier, MD

SESSION DESCRIPTION
In this session we will evaluate some of the most common controversial debated innovative aspects in the management of rectal cancer and some of the important perioperative variables including imaging and histopathologic assessment.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

• Optimally stage rectal carcinoma
• Appropriately utilize therapeutic methods ranging from transanal endoscopic surgery to total mesorectal excision to observation alone
• Be cognizant of the methods of audit to ensure appropriate surgical quality

SESSION OUTLINE

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<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>1:00PM</td>
<td>Imaging for success</td>
<td>Albert Parlade, MD</td>
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<tr>
<td>1:15PM</td>
<td>Laparoscopic TME</td>
<td>Roger Motson, MD</td>
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<tr>
<td>1:30PM</td>
<td>APR - does patient position matter?</td>
<td>David Etzioni, MD</td>
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<tr>
<td>1:45PM</td>
<td>Quality assessment after neoadjuvant therapy and TME</td>
<td>Mariana Berho, MD</td>
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<tr>
<td>2:00PM</td>
<td>Using molecular markers to target therapy</td>
<td>Matthew Kalady, MD</td>
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<tr>
<td>2:15PM</td>
<td>What do we do after complete response to neoadjuvant therapy?</td>
<td>Julio Garcia-Aguilar, MD</td>
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<tr>
<td>2:30PM</td>
<td>Panel discussion</td>
<td>Dana Sands, MD</td>
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<tr>
<td>3:00PM</td>
<td>Break</td>
<td>Jonathan Efron, MD</td>
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<tr>
<td>3:15PM</td>
<td>Defining the limits of transanal excision</td>
<td>John Marks, MD</td>
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<tr>
<td>3:30PM</td>
<td>Is robotic TME really better?</td>
<td>Feza Remzi, MD</td>
</tr>
<tr>
<td>3:45PM</td>
<td>Functional and oncologic results after intersphincteric proctectomy?</td>
<td>David Rattner, MD</td>
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<tr>
<td>4:00PM</td>
<td>Methods of reconstruction after TME</td>
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<tr>
<td>4:15PM</td>
<td>Whatever happened to NOTES?</td>
<td></td>
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<tr>
<td>4:30PM</td>
<td>Panel discussion</td>
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LEARNING THEME

- Colorectal
- New technologies/skills acquisition
- Professional/Economic

GUIDELINES

- Laparoscopic Resection of Curable Colon and Rectal Cancer

*Included in Registration SuperPass (Option A) or Registration Option B

BALLROOM II
Re-Operative Foregut Surgery

Session Chair: Michael Holzman, MD; Session Co-Chair: Nicole Fearing, MD

SESSION DESCRIPTION
Complications associated with prior anti-reflux operations pose a significant problem for patients and the healthcare system. Patient evaluation and trying to understand the etiology of the failures is critical in considering re-operative procedures. This course is designed to review some of the more common problems encountered by gastroenterologist and surgeons caring for patients with reflux disease. Topics covered will include recurrent reflux, persistent dysphagia, recurrent hiatal hernia as well as motility disorders. Participants should gain a better understanding how to avoid complications at the initial operation as well as obtaining knowledge regarding evaluation and treatment of recurrent or persistent symptoms.

SESSION OBJECTIVES:
At the conclusion of this session, participants will be able to:
• Discuss the evaluation and management of patients with failed hiatal hernia repair, recurrent GERD and achalasia
• Discuss treatment options available for patients with recurrent hiatal hernias, recurrent GERD and achalasia
• Discuss the results of various treatment options for revisional foregut surgery.

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>1:00PM</td>
<td>Recurrent GERD</td>
<td>John Hunter, MD</td>
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<tr>
<td>1:15PM</td>
<td>Persistent Dysphagia</td>
<td>Nathaniel Soper, MD</td>
</tr>
<tr>
<td>1:30PM</td>
<td>Recurrent Hiatal Hernia</td>
<td>Brant Oelschlager, MD</td>
</tr>
<tr>
<td>1:45PM</td>
<td>Approach To Patients With Esophageal Motility Disorders And The Short Esophagus</td>
<td>Steve Eubanks, MD</td>
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<tr>
<td>2:00PM</td>
<td>Vagal Nerve Injuries (Gastroparesis / Diarrhea)</td>
<td>Steven P. Bowers, MD</td>
</tr>
<tr>
<td>2:10PM</td>
<td>Endoscopic Options</td>
<td>Vic Velanovich, MD</td>
</tr>
<tr>
<td>2:20PM</td>
<td>Recurrent Dysphagia After Heller Myotomy</td>
<td>William O. Richards, MD</td>
</tr>
<tr>
<td>2:35PM</td>
<td>Questions/Discussion</td>
<td></td>
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</table>

LEARNING THEME

ERO Foregut

GUIDELINES
• Surgical Treatment of Gastroesophageal Reflux Disease (GERD)
• Surgical Treatment of Esophageal Achalasia

SAGES/ASMBS Panel – Innovative Bariatric Procedures

SESSION DESCRIPTION
This session is designed to provide an update of select emerging and innovative bariatric procedures. A wide range of topics will be explored including gastric plication, adjustable banding after RYGB, metabolic surgery, electrical implants, and endolumenal procedures for the treatment of morbid obesity.

SESSION OBJECTIVES:
At the conclusion of this session, participants will be able to:
• Describe the role of new and emerging techniques to perform both primary and revisional bariatric surgery.
• Understand indications, technique, and outcome of gastric plication.
• Describe emerging endolumenal procedures for the treatment of obesity.
• Describe the new concepts in the mechanism of action of metabolic surgery.
• Understand and describe the current status of neuromodulation/electric implants for the treatment of obesity.

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>1:00PM</td>
<td>Laparoscopic Greater Curvature Plication</td>
<td>Stacy Brethauer, MD</td>
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<tr>
<td>1:20PM</td>
<td>LAGB with Plication</td>
<td>Dana Portenier, MD</td>
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<tr>
<td>1:40PM</td>
<td>Electrical Implants (gastric and vagal pacing)</td>
<td>Scott Shikora, MD</td>
</tr>
<tr>
<td>2:00PM</td>
<td>Update on endolumenal bariatric surgery (primary and revisional surgery)</td>
<td>Dean Mikami, MD</td>
</tr>
<tr>
<td>2:20PM</td>
<td>Banding the gastric pouch</td>
<td>Marc Bessler, MD</td>
</tr>
<tr>
<td>2:40PM</td>
<td>Update on metabolic procedures for type II diabetes mellitus</td>
<td>Francesco Bessler, MD</td>
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</table>

LEARNING THEME

B Bariatrics
FE Flex Endo
NS New technologies/skills acquisition

GUIDELINES
• Clinical Application of Bariatric Surgery (section on revisional surgery)
• Position Statement on Endolumenal Therapies for Gastrointestinal Diseases
Thursday, April 18, 2013

3:00PM - 3:30PM  *Included in Registration SuperPass (Option A) or Registration Option B

Happy (Half) Hour Break in Exhibit Hall

3:30PM - 5:00PM  *Included in Registration SuperPass (Option A) or Registration Option B

Humanitarianism
Session Chair: Tonia Young-Fadok, MD; Session Co-Chair: Jo Buyske, MD
ROOM 339

SESSION DESCRIPTION
This session will describe some of the humanitarian needs both domestically in the US and internationally. In recognition of our military and military members, there will be focus on the role of the US military in responding to international disasters, specifically Haiti January 12, 2010. We will also discuss some of SAGES efforts in the realm of education and service.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
- Be aware of the domestic need for humanitarian aid and possibilities for volunteerism
- Discuss the complex role of the military in responding to disasters
- Learn about SAGES initiatives in international education and service

SESSION OUTLINE

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<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>3:30PM</td>
<td>Humanitarian Needs In The US</td>
<td>Douglas Gray, MD</td>
</tr>
<tr>
<td>3:45PM</td>
<td>The Role Of The US Military In Disasters: Haiti</td>
<td>MAJ Mike Coote, Office of the Command Surgeon</td>
</tr>
<tr>
<td>4:00PM</td>
<td>Sages Initiatives In Education And Service</td>
<td>Horacio Asbun, MD</td>
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<tr>
<td>4:15PM</td>
<td>Discussion</td>
<td>All</td>
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</table>

S026 A PROCEDURAL COST MINIMIZATION ANALYSIS FOR HERNIA REPAIRS AND MINOR PROCEDURES BETWEEN A UNITED STATES ACADEMIC INSTITUTION AND A MEDICAL MISSION TO THE DOMINICAN REPUBLIC
Jaime A Cavallo, MD, MPH, Jenny Ousley, BS, Christopher Barrett, MD, Sara Baalman, MA, Kyle Ward, DO, Margaret M Frisella, RN, Brent D Matthews, MD; Section of Minimally Invasive Surgery, Department of Surgery, Washington University School of Medicine, St. Louis, Missouri

Video Presentation
4:30PM  Dr. George Berci Film Debut – Video Documentary  Michael Brunt, MD

“George Berci – Trials, Triumphs, Innovations” Film Debut
Thursday, April 18, 2013 - 4:30pm
Room 339
SERF Reception to follow at 5:30pm in Room 343

Can a man who was once hungry, who dug trenches as a forced laborer, and who was oppressed by a totalitarian Communist regime grow up to change the face of surgery? The answer is “Yes.” The man is George Berci.

More than a year ago SAGES and the SAGES Foundation commissioned a documentary film to be made about the life and medical innovations of George Berci. That film will be shown on Thursday afternoon, April 18th at 4:30 PM in the Room 339.

Michael Brunt, the film’s screenwriter and producer says that “Until I was making this film I had no idea how much Dr. Berci’s work impacted every phase of endoscopic surgery from access, to light, to image. There is no doubt that his ideas and his work changed the face of surgery.”

Please join us as we look at the life and work of a man who has made all of us and all of our patients better for his having survived and imagined a better way to do surgery.
Thursday, April 18, 2013

NOTES Videos
Session Chair: John Mellinger, MD; Session Co-Chair: Eric Hungness, MD

SESSION DESCRIPTION
This panel will focus on current clinical NOTES applications, with video and discussion by key clinical leaders with these techniques. Rigid and flexible transvaginal and transrectal techniques for operations such as cholecystectomy and appendectomy will be demonstrated, along with bariatric, colectomy, proctectomy, hernia, and esophageal myotomy applications.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
• List criteria, which might render a patient an appropriate candidate for a NOTES procedure
• Adapt NOTES techniques for selected patients in their own practice with appropriate added training and support
• Use current outcomes data from pioneering surgeons to educate their own patients on the potential merits and liabilities of NOTES techniques

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>3:30PM</td>
<td>Transvaginal Cholecystectomy (Flexible And Rigid Approach)</td>
<td>Carsten Zornig, MD</td>
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<tr>
<td>3:50PM</td>
<td>Transvaginal Appendectomy And Hernia Repair</td>
<td>Kurt Roberts, MD</td>
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<tr>
<td>4:05PM</td>
<td>Transrectal Proctectomy</td>
<td>Patricia Sylla, MD</td>
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<tr>
<td>4:15PM</td>
<td>Transrectal Colectomy</td>
<td>Karl Fuchs, MD</td>
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<tr>
<td>4:25PM</td>
<td>Peroral Endoscopic Myotomy (POEM)</td>
<td>Eric Hungness, MD</td>
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<tr>
<td>4:35PM</td>
<td>NOTES Bariatric Surgery</td>
<td>Santiago Horgan, MD</td>
</tr>
<tr>
<td>4:45PM</td>
<td>Panel Discussion</td>
<td>All speakers</td>
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</tbody>
</table>

LEARNING THEME
NS New technologies/skills acquisition

SAGES acknowledges an educational grant in support of this session from Olympus America, Inc.

3:30PM - 5:30PM
ROOM 330
Ultimate SAGES Competition – Qualifying Round Testing for Residents

5:30PM - 6:30PM
ROOM 343
SAGES Education & Research Foundation Cocktail Reception
Thursday, April 18, 2013

Industry Education Events** *(No registration required)*

Industry presentations will take place on Thursday evening, immediately following SAGES sessions. Symposia on varying topics will be offered in SAGES session rooms. **Registration is FREE for any SAGES attendee.**

**These events are not planned nor accredited for CME by SAGES.**

**BAXTER HEALTHCARE**

“Techniques and Biologic Technologies in Bariatric and HBP Surgery”

This is a non-CME activity presented and supported by Baxter Healthcare.

**DAVOL INC., A BARD COMPANY**

“Patient-Focused Approach to Technique and Mesh Selection in Hernia Repair”

Michael J. Rosen MD, FACS

Associate Professor of Surgery, Chief, Division of GI and General Surgery, Director, Case Comprehensive Hernia Center. Co Director, Case Acute Intestinal Failure Unit, Case Medical Center, Case Western Reserve University, University Hospitals of Cleveland

This is a non-CME activity presented and supported by Davol Inc., a BARD Company.

**INTUITIVE SURGICAL**

“I’m an Advanced Laparoscopic Surgeon…and Now is the Time for Robotics”

Presenters: Erik Wilson, MD

Rick Low, MD

Bruce McIntosh, MD

This is a non-CME activity presented and supported by Intuitive Surgical.

**STRYKER ENDOSCOPY**

“Smaller and Smarter: Needlescopic Surgery”

Presenter: Todd Ponsky, MD

This is a non-CME activity presented and supported by Stryker Endoscopy.

**TORAX MEDICAL**

“Revitalizing the Surgeon’s Role in Reflux Disease”

This is a non-CME activity presented and supported by Torax Medical.

**Agenda**

Welcome - Tom DeMeester, MD, FACS

GERD Epidemiology: We Are Losing the Battle - Jeffrey Peters, MD, FACS

The LINX System: Changing the Paradigm of GERD Care - Robert Ganz, MD, FASGE

This is a non-CME activity presented and supported by Torax Medical.
<table>
<thead>
<tr>
<th>START</th>
<th>END</th>
<th>SESSION</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Panel: SAGES Town Hall on Healthcare Reform – What You Need to Know!</td>
<td>Room 318</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Concurrent Session SS4 Solid Organ</td>
<td>Ballroom III &amp; IV</td>
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<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Concurrent Session SS5 Robotics</td>
<td>Room 327</td>
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<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Concurrent Session SS6 Therapeutic Endoscopy</td>
<td>Ballroom I</td>
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<tr>
<td>7:30 AM</td>
<td>8:30 AM</td>
<td>Concurrent Session SS7 Colorectal Abstracts and Podium Presentations I</td>
<td>Ballroom II</td>
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<tr>
<td>8:30 AM</td>
<td>10:00 AM</td>
<td>SS8 Plenary Session I</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>11:00 AM</td>
<td>Exhibits, Poster Session, Learning Center Open</td>
<td>Exhibit Hall E</td>
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<tr>
<td>10:00 AM</td>
<td>10:45 AM</td>
<td>Keynote: Presidential Address – W. Scott Melvin, MD “Journeys”</td>
<td>Ballroom III &amp; IV</td>
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<tr>
<td>10:45 AM</td>
<td>11:30 AM</td>
<td>Keynote: Gerald Marks Lecture – “A Blueprint for Quality and Patient Safety in an Era of Innovation” E. Christopher Ellison, MD</td>
<td>Ballroom III &amp; IV</td>
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<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Session: Simulation – The Next Generation</td>
<td>Room 327</td>
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<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Debate: Presidential Debates</td>
<td>Ballroom I</td>
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<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Panel: MIS in Pregnancy</td>
<td>Ballroom III &amp; IV</td>
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<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Panel: SAGES/SSAT – Update on Bile Duct Injuries</td>
<td>Room 318</td>
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<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>Concurrent Session SS9 Colorectal Abstract &amp; Podium Presentations II</td>
<td>Ballroom II</td>
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<tr>
<td>12:30 PM</td>
<td>1:30 PM</td>
<td>Fellowship Council Luncheon: Surgical Skills and Competencies</td>
<td>Room 339</td>
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<tr>
<td>1:30 PM</td>
<td>3:00 PM</td>
<td>Panel: Bariatric and Pediatric Emergencies for the non-Pediatric, non-Bariatric Surgeon</td>
<td>Ballroom I</td>
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<tr>
<td>1:30 PM</td>
<td>3:00 PM</td>
<td>Session: Emerging Technology</td>
<td>Room 327</td>
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<tr>
<td>1:30 PM</td>
<td>3:00 PM</td>
<td>Panel: Pancreas – Current Controversies in Minimally Invasive Pancreatic Surgery</td>
<td>Room 318</td>
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<td>1:30 PM</td>
<td>3:00 PM</td>
<td>Concurrent Session SS10 Foregut</td>
<td>Ballroom III &amp; IV</td>
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<td>1:30 PM</td>
<td>3:00 PM</td>
<td>Concurrent Session SS11 Colorectal Abstract &amp; Podium Presentations III</td>
<td>Ballroom II</td>
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<tr>
<td>3:00 PM</td>
<td>4:00 PM</td>
<td>Panel: Multidisciplinary Future of Surgery</td>
<td>Room 318</td>
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<td>3:30 PM</td>
<td>5:30 PM</td>
<td>Resident/Fellow Scientific Session</td>
<td>Room 327</td>
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<tr>
<td>3:30 PM</td>
<td>4:00 PM</td>
<td>Happy (Half) Hour Break in Exhibit Hall</td>
<td>Exhibit Hall E</td>
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<tr>
<td>4:00 PM</td>
<td>5:30 PM</td>
<td>Panel: Acute Care Laparoscopy</td>
<td>Ballroom III &amp; IV</td>
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<tr>
<td>4:00 PM</td>
<td>5:30 PM</td>
<td>Panel: Foregut – Myth Meets Reality</td>
<td>Room 318</td>
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<tr>
<td>4:00 PM</td>
<td>5:30 PM</td>
<td>Panel: SAGES/ISLCRS – Colorectal Robotics: The 2013 Update</td>
<td>Ballroom II</td>
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<tr>
<td>4:30 PM</td>
<td>5:30 PM</td>
<td>SAGES/CAGS Session/Competition: Ultimate SAGES</td>
<td>Ballroom I</td>
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<tr>
<td>6:30 PM</td>
<td>7:30 PM</td>
<td>Meet the Leadership Reception for Residents, Fellows &amp; New Members</td>
<td>Tatu Asian Restaurant @ Power Plant Live!</td>
</tr>
<tr>
<td>7:30 PM</td>
<td>11:30 PM</td>
<td>SAGES Gala &amp; International Sing-Off</td>
<td>Power Plant Live!</td>
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</tbody>
</table>
SAGES Town Hall on Healthcare Reform – What You Need to Know!

Session Chair: Matthew Hutter, MD; Session Co-Chair: Eli Lerner, MD

SESSION DESCRIPTION
Like it or not, healthcare reform is happening. In a town hall format, we will explore the key components and current status of the Affordable Care Act, the impact of the Supreme Court Ruling and of Election 2012. Following brief presentations, the floor will be open for a town hall format for discussions about what you need to know about healthcare reform, and how academic medical centers, small hospitals and private practices are preparing themselves for the impending changes.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

- To understand the current status of Health Care Reform, after a busy year that has included a Supreme Court Ruling, and the Elections of 2012
- To learn how accountable care organizations (ACOs) are developing and how they will impact patients and providers in small and large hospitals, and for salaried physicians as well as private practitioners
- To answer critical questions you and others may have about Healthcare reform, in an interactive town hall format

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>7:30AM</td>
<td>Introduction and the Town Hall format</td>
<td>Matthew Hutter, MD</td>
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<tr>
<td>7:45AM</td>
<td>Updates from Washington: the current status of Healthcare Reform after the election, and the role of the ACS</td>
<td>Frank Opelka, MD</td>
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<tr>
<td>7:50AM</td>
<td>What Academic Medical Centers are doing in response to Healthcare Reform and ACOs</td>
<td>John Colmers, MD</td>
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<tr>
<td>8:00AM</td>
<td>What Private Practices/Small Hospitals are doing in response to Healthcare Reform</td>
<td>Ross Goldberg, MD</td>
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<tr>
<td>8:10AM</td>
<td>Town Hall Discussion</td>
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</tbody>
</table>

LEARNING THEME
PE2 Professional/Economic

Scientific Session/Concurrent Sessions
(accepted oral & video presentations)

Concurrent Session SS4 Solid Organ
Moderators: Kenric Murayama, MD & Manabu Yamamoto, MD

S027 THE OUTCOMES OF NON-TRAUMA SPLENECTOMY FROM NATIONWIDE INPATIENT SAMPLE A Y Zemlyak, MD, V B Tsirline, MD, S El Djouzi, MD, A L Walters, MS, A E Lincourt, PhD, MBA, R F Sing, DO, B T Heniford, MD; Carolinas Medical Center

V012 ROBOTIC TECHNIQUE FOR CHALLENGING ASPECTS OF DONOR NEPHRECTOMY Alisa M Coker, MD, Kristin L Meekel, MD, Joslin Cheverie, MD, Juan S Barajas-Gamboa, MD, Bryan J Sandler, MD, Garth R Jacobsen, MD, Ajai Khanna, MBBS, PhD, Mark A Talamini, MD, Alan W Hemming, MD, Santiago Horgan, MD, University Of California San Diego

S028 HYBRID APPROACH OF VIDEO ASSISTED NECK SURGERY (HAVANS) - ENDOSCOPIC COMPLETE CENTRAL NODE DISSECTION WITH CRANIO-CAUDAL VIEW FOR THYROID CARCINOMA Akhiro Nakajo, MD, PhD, Hideo Arima, MD, PhD, Munetsugu Hirata, MD, Yoshie Takae, MD, Yuke Kijima, MD, PhD, Heiji Yoshinaka, MD, PhD, Shoji Natsugoe, MD, PhD; Department of Surgical Oncology, Breast and Thyroid Surgery, Kagoshima University

S029 LAPAROSCOPIC ADRENAL METASTASECTOMY: APPROPRIATE, SAFE, AND FEASIBLE Judy Chen, MD, Ali Tavakkoli, MD; Brigham and Women’s Hospital

V013 BILATERAL PARTIAL ADRENALECTOMY FOR BILATERAL PHEOCHROMOCYTOMA Nathan G Richards, MD, Frederick J Brody, MD, MFA; George Washington University Medical Center

S030 PERIOPERATIVE ASSESSMENT OF PATIENTS WITH PRIMARY ALDOSTERONISM AT THE TORONTO UNIVERSITY HEALTH NETWORK Nicholas Gaudet, MD, Usman Hameed, MD, Allan Okrainec, MD, Todd Penner, MD, David R Urbach, MD; University of Toronto, University Health Network

Concurrent Session SS5 Robotics
Moderators: Mehran Anvari & Carlos Galvani, MD

S031 PRESENT COMPARISON OF OVER 12,000 PATIENTS WHO UNDERWENT OPEN, LAPAROSCOPIC, AND ROBOTIC NISSEN FUNDOPICATIONS Benjamin Owen, MD, Anton Simorov, MD, Andy Siref, Jeremy Parcells, MD, Dmitry Oleynikov, MD, FACS; University of Nebraska Medical Center

S032 SURGICAL COMPLETENESS OF ROBOTIC THYROIDECTOMY; A PROSPECTIVE COMPARATIVE STUDY OF ROBOTIC THYROIDECTOMY VERSUS OPEN CONVENTIONAL THYROIDECTOMY Sohee Lee, MD, Cho Rok Lee, MD, Seulkee Park, MD, Haiyoung Son, MD, Jung Woo Kim, MD, Sang-Wook Kang, MD, Jong Ju Jeong, MD, Kee-Hyun Naim, MD, Woong Youn Chung, MD, Cheong Soo Park, MD; Department of Surgery, Yonsei University College of Medicine
S033 THE MULTI-PHASIC LEARNING CURVE OF ROBOTIC-ASSISTED RECTAL SURGERY FOR AN EXPERIENCED LAPAROSCOPIC COLORECTAL SURGEON: AN ANALYSIS OF 197 RECTAL CANCER PATIENTS  Kevin K Sng, Dr, Masayasu Hara, Dr, Jae Won Shin, Dr, Byung Eun Yoo, Dr, Kyung-Sook Yang, Seon Hahn Kim, Dr; Division of Colorectal Surgery, Department of Surgery, Korea University Anam Hospital, Korea University College of Medicine, Seoul, Korea

S034 A COMPARATIVE STUDY OF ROBOTIC SLEEVE GASTRECTOMY AND ROBOTIC GASTRIC BYPASS: A SINGLE INSTITUTION EXPERIENCE. Anthony M Gonzalez, MD, FACS, FASMSB, Jorge R Rabaza, MD, FACS, FASMBS, Rupa Seetharamaiah, MD, FACS, Charan Donkor, MD, Key Romero, MD, Radomir Kosonovic, MD, Jonathan Arad, MD; Baptist Health South Florida, Florida International University Herbert Wertheim College of Medicine

V014 ROBOTIC ENUCLEATION OF GIANT ESOPHAGEAL LEIOMYOMA Andrew Gamenthaler, MD, Ken Meredith, MD; Moffitt Cancer Center

S035 LAPAROSCOPIC VERSUS ROBOTIC-ASSISTED SURGERY FOR MEDIAN ARCUATE LIGAMENT SYNDROME Michael Do, MD, William Richardson, Abbas Abbas, Charles Sternbergh, MD, Hernan Bazar, MD, Taylor Smith, MD; Ochsner Clinic Foundation

Concurrent Session SS6 Therapeutic Endoscopy

Moderators: Bipan Chand, MD & Robert Fanelli, MD

S036 LAPAROSCOPIC MOONITORED COLONOSCOPIC POLYPECTOMY VS LAPAROSCOPIC RIGHT HEMICOLECTOMY: A COMPARATIVE ANALYSIS ON 187 PATIENTS WITH POLYS IN THE RIGHT COLON Morris E Franklin Jr, MD, FAS, Song Liang, MD, PHD, Jeffrey L Glass, MD, FACS; Texas Endosurgery Institute

S037 FEASIBILITY OF FULL THICKNESS GASTRIC RESECTION USING MASTER ENDOSCOPIC ROBOT AND CLOSURE BY OVERSTITCH 7? A PRECLINICAL STUDY Philip W Chiu, MD, SJ Fhee, Z Wang, Z Sun, Carmen C Poon, T Yamamoto, I Penny, Jyjy Wong, James Lau, MD, Ky Ho, MD; Department of Surgery,Institute of Digestive Disease,The Chinese University of Hong Kong,School of Mechanical

S038 ENDOSCOPIC MANAGEMENT OF HIGH GRADE DYSPLASIA AND INTRAMUCOSAL CARCINOMA: EXPERIENCE IN A LARGE ACADEMIC MEDICAL CENTER Kyle A Perry, MD, Mario Salazar, MD, Andrew Suizo, Jon Walker, MD, Jeffrey W Hazey, MD, W S Melvin, MD; The Ohio State University Medical Center

S039 CHOLESCYCTOMY AFTER ERCP IN THE OVER 80’s: ADDING INSULT TO INJURY? Rebecca L Teasdale, Miss, Mukhtar Ahmad, Mr, Bussa R Gopinath, Mr; North Tees and Hartlepool NHS Trust

S040 THE Efficacy of ENDOSCOPIC DRAINAGE OF PANCREATIC PSEUDOCYSTS Kristina Spate, MD, Hannah Palin, Michael Egger, MD, Gary C Vitale, MD; Department of Surgery, University of Louisville

S041 LONG-TERM OUTCOMES OF ENDOSCOPIC FUNDOPULATION: 2 YEAR RESULTS FROM THE PROSPECTIVE MULTICENTER U.S. STUDY Reginald CW Bell, MD, FACS, William E Barnes, MD, FACS, Bart J Carter, MD, FACS, Robert W Sewell, MD, FACS, Peter G Mavrelos, MD, Glenn M Ihde, MD, Kevin M Hoddinott, MD, FACS, Mark A Fox, MD, FACS, Tanja Gunsberger, DO, Mark G Hausmann, MD, FACS, David Dargis, DO, Brian DaCosta Gill, MD, FACS, Erik Wilson, MD, FACS, Karim S Trad, MD, FACS; SurgOne, PC, Englewood, Colorado

Concurrent Session SS7 Colorectal Abstracts and Podium Presentations I

Moderators: Eric Weiss, MD & Wai Lun Law, MD

S042 SHORT TERM RESULTS ACCORDING TO GENDER BY PROSPECTIVE STUDY OF 490 LAPAROSCOPIC C-STAGE 0/I RECTAL CANCER RESECTION Shigeki Yamaguchi, MD, Seiichiro Yamamoto, MD, Junji Okuda, MD, Koki Otsuka, MD, Masanori Sugito, MD, Takashi Yamaguchi, MD, Yoshisharu Sakai, MD, Takatoshi Nakamura, MD, Kenichi Yoshimura, Masahiko Watanabe, MD; Saitama Medical University International Medical Center and the Japan Society of Laparoscopic Colorectal Surgery

S043 REAL-TIME OPTICAL DIAGNOSIS FOR SURGICAL MARGIN IN LOW RECTAL CANCER USING MULTIPHOTON MICROSCOPY Jun Yan, MD, Shuangmu Zhuo, PhD, Gang Chen, Mingang Ying, MD; Department of Surgery, Fujian Provincial Tumor Hospital, Teaching Hospital of Fujian Medical University, Fuzhou, 350014, P.R.China; Institute of Laser and Optoelectronics Technology, Fujian Provincial Key Laboratory for Photonics Technology, Key Laborato

V015 TOTALLY INTRACORPOREAL LAPAROSCOPIC SIGMOIDECTOMY WITH TRANSVAGINAL SPECIMEN EXTRACTION Francesco Stipa, MD, PhD, FACS, Emanuele Sorcelli, MD, PhD, FACS, Antonio Burza, MD, Phd, FACS, Rosanna Curinga, MD, Piero Delle Site, MD, Ettore Santini, MD; Department of Surgery, Colorectal Surgical Unit San Giovanni Hospital, Rome, Italy

S044 SYSTEMATIC REVIEW AND META-ANALYSIS OF THE EFFECTIVENESS OF COLORECTAL CANCER TUMOR BOARDs S Shah, S Arora, T Athanasiou, G Atkin, R Glynne-Jones, P Mathur, A Darzi, N Sevdalis; Imperial College London, Barnet Hospital, Mount Vernon Cancer Centre

V016 ROBOTIC TRANSANAL SURGERY Sam Atallah, MD, FACS, FASCRS, Eduardo Parra-Davila, MD, FACS, FASCRS, Teresa deBeche-Adams, MD, Matthew Albert, MD, FACS, FASCRS, Sergio Larach, MD, FACS, FASCRS; Florida Hospital

S045 CRITICAL APPRAISAL OF LEARNING CURVE FOR SINGLE INCISION LAPAROSCOPIC RIGHT COLECTOMY Javier Nieto, MD, Madhu Ragupathi, MD, Chirag Patel, MD, Ali Aminian, MD, Eric M Haas, MD, FACS, FASCRS; Colorectal Surgical Associates, Ltd, LLP / Minimally Invasive Colon and Rectal Surgery, Department of Surgery, The University of Texas Medical School / Michael E. DeBakey Department of Surgery, Baylor College of Medicine / Houston, TX
Friday, April 19, 2013

Scientific Sessions & Panels

SS8 Plenary Session I

Moderators: Gerald Fried, MD & Karl Fuchs

S046 IMPACT OF COMORBIDITY ON OUTCOMES AND OVERALL SURVIVAL AFTER OPEN AND MINIMAL INVASIVE ESPHAGECTOMY FOR LOCALLY ADVANCED ESPHAGEAL CANCER. James P Dolan, MD, Taranjeet Kaur, MBBS, Brian S Diggs, PhD, Renato A Luna, MD, Paul Schipper, MD, Brandon Tieu, MD, Brett C Sheppard, MD, John G Hunter, MD; Oregon Health & Science University

S047 DOES LAPAROSCOPIC ADRENALECTOMY JEOPARDIZE ONCOLOGIC OUTCOMES FOR PATIENTS WITH KNOWN OR SUSPECTED ADRENOCORTICAL CARCINOMA? Amanda Cooper, MD; Mouhammed Haba, MD, Elizabeth Grubbs, MD, Brian Bednarski, Anita Ying, MD, Alexandria Phan, MD, Nancy Perrier, MD, Jeffrey Lee, MD, Thomas Aloia, MD; The University of Texas M.D. Anderson Cancer Center

S048 WITHDRAWN

S049 END-TO-END HAND SEWN ANASTOMOSIS VERSUS SIDE-TO-SIDE STAPLED ANASTOMOSIS IN LAPAROSCOPIC RIGHT COLECTOMY. A PROSPECTIVE RANDOMIZED CONTROLLED TRial. M Bune, MD, A Canelas, MD, F Carballo, MD, E Grzona, MD, M Laporte, MD, C Peczan, MD, N Rotholtz, MD; Colorectal Surgery Division - Hospital Alemán de Buenos Aires. Argentina.

V017 EXPERIENCE WITH LAPAROSCOPIC MEDIAN ARCULATE LIGATION RELEASE IN 26 PATIENTS Nathan G Richards, MD, Richard Amdur, PhD, Richard Neville, MD, Anton Sidawy, MD, MPH, Frederick J Brody, MD, MBA; George Washington University Medical Center

V018 LAPAROSCOPIC EXCISION OF TYPE IC CHOLEDOCHAL CYST INCLUDING INTRAPANCREATIC PORTION WITH HEPATICOJEJUNOSTOMY RECONSTRUCTION Cameron D Adkisson, MD, John A Stauffer, MD, Adam S Harris, MD, Horacio J Asbun, MD, FACS; Mayo Clinic Florida

S050 VOLUME AND OUTCOME RELATIONSHIP IN BARIATRIC SURGERY IN THE ERA OF LAPAROSCOPY Mehraneh D Jafari, MD, Monica T Young, MD, Vinh Q Nguyen, PhD, Brian R Smith, MD, Michael J Stamos, Ninh T Nguyen, MD; University of California, Irvine

S051 LONG TERM FOLLOW UP OF ENDOSCOPIC SCLEROTHERAPY FOR DILATED GASTROJEJUNOSTOMY AFTER GASTRIC BYPASS Magdy Giurgius, MD, Nicole Fearing, MD, Alexandra Weir, BA, Lada Micheas, MS, Archana Ramaswamy, MD; University of Missouri

S052 SUBMUCOSAL ENDOSCOPY WITH MUCOSAL RESECTION (SEMR): A NEW HYBRID TECHNIQUE OF ENDOSCOPIC SUBMUCOSAL DISSECTION IN THE PORCINE RECTOSIGMOID COLON Kohei Takizawa, MD, Christopher J Gostout, MD, Mary A Knipschield; Developmental Endoscopy Unit, Division of Gastroenterology and Hepatology, Mayo Clinic, USA

SAGES acknowledges our Diamond Level Donors for their support of this session: Covidien, Stryker Endoscopy

9:30AM - 3:30PM
Exhibits, Poster Session, and Learning Center Open

10:00AM - 10:45AM
SAGES Presidential Address – “Journeys”

W. Scott Melvin, MD

Scott Melvin is Professor of Surgery at Ohio State University Medical Center, and Chief at Division of General and Gastrointestinal Surgery, Director at Center for Minimally Invasive Surgery and Executive Vice Chair at Department of Surgery at Ohio State Medical Center. He is the Fellowship Director for the Center for Minimally Invasive Surgery at the Ohio State University.

Scott has been a member of the SAGES Board since 2001, and has Chaired the Program, Technology and Development Committees. He served as the Program Chair for the 2005 meeting; on the FUSE and Industry Relations Task Forces, and the NOTES Joint Committee. He is a member of the American Surgical Association and has been named Teacher of the Year multiple times from medical students and surgical residents. He has received the Distinguished Educator Award from the College of Medicine. His surgical interests include Robotic Surgery, Minimally Invasive Surgery, Gastroesophageal Reflux, Hepatobiliary and Pancreatic Surgery, Complications of Biliary Surgery. He is known to his colleagues for being a great friend, a superb mentor, a decent skier, a poor golfer and hopefully with a good sense of humor.

SESSION DESCRIPTION
Journeys in Life and Surgery help crystallize important characteristics of the successful surgeon.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

• Identify how life’s experiences can provide insight into surgical success
• List characteristics that can contribute to surgical optimization
• Describe how certain personal characteristics translate into excellence in patient care

LEARNING THEME

- Academic/Educational
- Professional/Economic
- New technologies/skills acquisition

*Included in Registration SuperPass (Option A) or Registration Option C

Ballroom III & IV
Friday, April 19, 2013

**Gerald Marks Lecture – “A Blueprint for Quality and Patient Safety in an Era of Innovation”**

E. Christopher Ellison, MD

The Gerald Marks Lecture is named for SAGES First President and one of the founding forces of the Society. Dr. Ellison is Distinguished Professor at the Ohio State University College of Medicine and the Robert M. Zollinger Chairman of the Department of Surgery. He also serves as the CEO of the Faculty Group Practice and Vice Dean for Clinical Affairs of the College of Medicine. He is a practicing general surgeon in an academic setting. His groundbreaking research includes pancreatic disease, hepatic cancer, wound healing, and Zollinger-Ellison Syndrome. He has published over 100 peer reviewed articles and is co-author with Robert M. Zollinger Jr of the 9th Edition of Zollinger’s Atlas of Surgical Operations which was published in the fall of 2010. More recently his primary interest has centered on issues concerning the future of general surgery. He is co-author of a book entitled “The Coming Shortage of Surgeons” which defines the impending shortage of surgeons in multiple specialties, including general surgery, the access problems this may create. In addition he has co-authored multiple papers on the surgical workforce, the most recent on rural work general surgery workforce issues and the role of Part-Time Surgeons in the future. Dr. Ellison is a past president of the Central Surgical Association, and governor-at-large of the American College of Surgeons (ACS). He currently serves as the Chair of ACS Advisory Council for General Surgery. He is a past vice president of the American Association of Endocrine Surgeons, serves on the editorial board of the American Journal of Surgery and as a Deputy Editor for the Journal of the American College of Surgeons. He served as Vice Chair of the American Board of Surgery in 2009-2010 and as Chair of the ABS in 2010-2011. He also serves as the Secretary of the American Surgical Association.

In true SAGES fashion, he is a man that looks not only at history but towards the future.

**SESSION DESCRIPTION**

With the rapid pace of innovation we must strive to ensure the highest quality and safety of care for our patients. A Blueprint relying of bedrock quality principles will be presented to help guide surgical leaders and innovators to maintain the highest standards of quality and safety.

**SESSION OBJECTIVES**

At the conclusion of this session, participants will be able to:
- Develop methods of hospital assessment and improvement using Six Sigma and DMAIC Methodology (Define, Measure, Analyze, Improve, Control)
- Develop methods of error reduction by using team training, checklists and visual management, standardization of processes, transparency and celebration of success
- Apply OPPE (Ongoing Physician Practice Evaluation) to prospectively assess physician performance

**LEARNING THEME**

PE Professional/Economic

*SAGES acknowledges our Diamond and Platinum Level Donors for their support of this lecture:

Diamond: Covidien, Stryker Endoscopy

Platinum: Ethicon Endo-Surgery, Karl Storz Endoscopy, Merck, Olympus America, Inc.*

**Simulation - The Next Generation**

**Session Chair:** Allan Okrainec, MD; **Session Co-Chair:** Melina Vassiliou, MD

**SESSION DESCRIPTION**

This one-hour session will focus on the future of surgical simulation. Topics discussed will include computer based simulation, gaming, and procedural simulators.

**SESSION OBJECTIVES**

At the conclusion of this session, participants will be able to:
- Describe emerging technologies being developed to enhance simulation as an educational tool
- Compare and contrast procedural versus fundamental simulation programs
- Recognize the importance computers and gaming can have on of learner motivation

**SESSION OUTLINE**

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>11:30AM</td>
<td>Is The Solution To Trainee Engagement A Serious Game?</td>
<td>Christopher Schlachta, MD</td>
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<tr>
<td>11:40AM</td>
<td>Procedural Based Simulation – Taking It To The Next Level</td>
<td>Adrian Park, MD</td>
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<tr>
<td>11:50AM</td>
<td>The Role Of Mental Rehearsal</td>
<td>John Paige, MD</td>
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<tr>
<td>12:00PM</td>
<td>Automation Of FLS – Are We Ready?</td>
<td>Erik Dutson, MD</td>
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<tr>
<td>12:10PM</td>
<td>Discussion</td>
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**LEARNING THEME**

AE Academic/Educational

NS New technologies/skills acquisition

*SAGES acknowledges our Diamond and Platinum Level Donors for their support of this lecture:*

Diamond: Covidien, Stryker Endoscopy

Platinum: Ethicon Endo-Surgery, Karl Storz Endoscopy, Merck, Olympus America, Inc.*
**Presidential Debates**

**Session Chair:** Gerald M. Fried, MD

**SESSION DESCRIPTION**
SAGES Past-Presidents will hotly debate topical issues related to gastrointestinal and endoscopic surgery. This no-holds-barred format will engage the audience fully to determine the outcome of the controversial issues.

**SESSION OBJECTIVES**
At the conclusion of this session, participants will be able to:

- Provide reasons for the endoscopic and laparoscopic management of achalasia
- State the advantages and limitations of single incision laparoscopy as an access technique for GI Surgery
- State the outcomes that should be measured to evaluate the procedures used to treat achalasia
- Recognize the balance between the patients’ expectations and the profession’s interpretation of best practice
- Describe a safe and thoughtful approach to introducing innovative procedures into practice

**SESSION OUTLINE**

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>11:30AM</td>
<td>The Great SAGES Presidential Debates of 2013 (Overview and Rules of Engagement)</td>
<td>Gerald M. Fried, MD</td>
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<tr>
<td>11:34AM</td>
<td>Be It Resolved That Per Oral Endoscopic Myotomy Will Make Laparoscopic Treatment</td>
<td>Gerald M. Fried, MD</td>
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<td></td>
<td>Obsolete For Primary Treatment Of Achalasia</td>
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<tr>
<td>11:37AM</td>
<td>Pros</td>
<td>Mark A. Talamini, MD</td>
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<tr>
<td>11:44AM</td>
<td>Cons</td>
<td>C. Daniel Smith, MD</td>
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<td>11:51AM</td>
<td>Rebuttals</td>
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<tr>
<td>11:57AM</td>
<td>Audience Questions and Final Vote</td>
<td>C. Daniel Smith, MD</td>
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<tr>
<td>12:02PM</td>
<td>Be It Resolved That It Is Time To Play Taps For Single Incision Laparoscopy</td>
<td>Gerald M. Fried, MD</td>
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<tr>
<td>12:05PM</td>
<td>Pros</td>
<td>Steven Schwartzberg, MD</td>
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<tr>
<td>12:12PM</td>
<td>Cons</td>
<td>Jeffrey L. Ponsky, MD</td>
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<tr>
<td>12:19PM</td>
<td>Rebuttals</td>
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<tr>
<td>12:25PM</td>
<td>Audience Questions and Final Vote</td>
<td>Jeffrey L. Ponsky, MD</td>
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**LEARNING THEME**
- **PE** Professional/Economic
- **NS** New technologies/skills acquisition

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**SAGES/SSAT Panel – Update on Bile Duct Injuries**

**Session Chair:** David Rattner, MD; **Session Co-Chair:** Jeffrey Matthews, MD

**SESSION DESCRIPTION**
Describe the reasons bile duct injuries continue to occur during laparoscopic cholecystectomy and methods to both prevent injuries and manage injuries when they occur.

**SESSION OBJECTIVES**
At the conclusion of this session, participants will be able to:

- Understand reasons that bile duct injuries occur and be able to identify situations in which there is a high risk of bile duct injury
- Understand the multidisciplinary approach to managing bile duct injuries that occur
- Understand when to refer patients to tertiary care centers for repair of bile duct injuries

**SESSION OUTLINE**

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>11:30AM</td>
<td>Bile Duct Injuries: Why Do They Still Happen - Techniques For Prevention And</td>
<td>Nathaniel Soper, MD</td>
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<tr>
<td></td>
<td>Identification Of High Risk Situations</td>
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<tr>
<td>11:45AM</td>
<td>Non-Surgical Management Of Bile Duct Injuries</td>
<td>Robert Hawes, MD</td>
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<tr>
<td>12:00PM</td>
<td>Definitive Repair Of Bile Duct Injuries: Who, Where, And When</td>
<td>Keith Lillemoe, MD</td>
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<tr>
<td>12:15PM</td>
<td>Discussion</td>
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**LEARNING THEME**
- **HPB** HPB/Solid Organ
- **FE** Flex Endo

**GUIDELINES**
- Clinical Application of Laparoscopic Biliary Tract Surgery

*SAGES acknowledges an educational grant in support of this panel from Stryker Endoscopy.*
Concurrent Session SS9 Colorectal Abstract & Podium Presentations II

Moderators: Barry Salky, MD & Gerald Marks, MD

S053 MULTIVARIATE ANALYSIS OF RISK FACTORS FOR WOUND INFECTION AFTER LAPAROSCOPIC COLORECTAL SURGERY
Joe Drosdeck, MD, Syed Husain, MBBS, Nilay Shah, MD, Andrew Suizo, BS, Alan Harzman, MD, Mark Arnold, MD; The Ohio State University Wexner Medical Center

S054 SYSTEMATIC EVALUATION OF DECISION-MAKING IN COLORECTAL CANCER TUMOUR BOARD MEETINGS: DEVELOPMENT AND VALIDATION OF A QUALITY ASSESSMENT TOOL
S Shah, S Arora, G Atkin, R Glynne-Jones, PM Mathur, A Darzi, N Sevdalis; Imperial College London, Barnet Hospital, Mount Vernon Cancer Centre

S055 IMPACT OF TRAINING SYSTEMS IN LAPAROSCOPIC COLORECTAL SURGERY. COMPARATIVE ANALYSIS OF THE LEARNING CURVE BETWEEN GENERAL SURGERY RESIDENTS, COLORECTAL SURGERY FELLOWS, AND COLORECTAL SURGEONS.
M Galván, MD, E Grzona, MD, A Canelas, MD, M Bun, MD, M Laporte, MD, C Peczan, MD, N Rotholtz, MD; Colorectal Surgery Division - Hospital Alemán de Buenos Aires. Argentina.

S056 QUALITY OF LIFE IMPAIRMENT AFTER ENDOLUMINAL LOCO-REGIONAL RESECTION (ELRR) AND LAPAROSCOPIC TOTAL MESORECTAL EXCISION (LME).
Emanuele Lezoche, MD, Bernardino Fabiani, MD, Alessandro M. Paginini, MD, PhD, Andrea Balla, MD, Anna Rita Vestri, MD, Lorenzo Pescatori, MD, Daniele Scoglio, MD, Giancarlo D’Ambrosio, MD, Giovanni Lezoche, MD, Department of Surgery P. Stefanini, Policlinico Umberto I, Sapienza; University of Rome

S057 PREVALENCE OF RESIDUAL NEOPLASTIC TISSUE AFTER ENDOSCOPIC RESECTION OF COLONIC NEOPLASTIC POLYPS: CORRELATION WITH THE SURGICAL SPECIMEN
M Bun, MD, L Pereyra, MD, E Grzona, MD, A Canelas, MD, C Fisher, MD, M Laporte, MD, C Peczan, MD, D Cimmino, MD, N Rotholtz, MD; Colorectal Surgery and Endoscopy Divisions - Hospital Alemán de Buenos Aires. Argentina.

S058 THE ROLE OF HAND-ASSISTED LAPAROSCOPY IN THE AGE OF SINGLE INCISION LAPAROSCOPY: AN EFFECTIVE ALTERNATIVE TO AVOID OPEN CONVERSION IN COLORECTAL SURGERY
Kyung Uk Jung, MD, Seong Hyeon Yun, MD, PhD, Yoon Ah Park, MD, Yong Beom Cho, MD, PhD, Hee Cheol Kim, MD, PhD, Woo Yong Lee, MD, PhD, Ho-Kyung Chun, MD, PhD; Samsung Medical Center

MIS in Pregnancy

Session Chair: David C. Brooks, MD; Session Co-Chair: Danielle S. Walsh, MD

SESSION DESCRIPTION
This session will present evidence-based recommendations for the Diagnosis, Treatment, and Use of Laparoscopy for Surgical Problems during Pregnancy. The SAGES Guidelines and a panel of experts will facilitate improved understanding of the optimal care of this unique population.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
- List two general surgical problems presenting acutely in the gravida patient
- Apply laparoscopic techniques for management of biliary disease and appendicitis safely to the pregnant patient
- Decrease the maternal morbidity and fetal mortality of biliary disease and appendicitis in pregnancy through increased use of laparoscopy

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>11:30 AM</td>
<td>Beta HCG Positive And Laparoscopy – Overview Of The Safety Data If Using MIS In Pregnancy</td>
<td>Danielle S. Walsh, MD</td>
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<tr>
<td>11:40 AM</td>
<td>Pregnancy Pitfalls - Pre Op, Peri Op, And Post Op - How To Evaluate, Operate, And Manage The Expectant Mother (Include Maternal Physiology)</td>
<td>Ray Price, MD</td>
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<tr>
<td>11:55 AM</td>
<td>Biliary Disease With Baby On Board – Review The Spectrum Of Biliary Disease In Pregnancy And An Evidence Approach To Management</td>
<td>Ali Tavakkoli, MD</td>
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<tr>
<td>12:10 PM</td>
<td>The Gravity Of Acute Appendicitis In Pregnancy – Evaluation, Management And Complications</td>
<td>Janey Pratt, MD</td>
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<tr>
<td>12:20 PM</td>
<td>Panel / Case Based Discussion</td>
<td>David C. Brooks, MD</td>
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LEARNING THEME

HPD 50 HPB/Solid Organ
C Colorectal
PE Professional/Economic

GUIDELINES
- Diagnosis, Treatment, and Use of Laparoscopy for Surgical Problems during Pregnancy
- Laparoscopic Appendectomy
Friday, April 19, 2013

Fellowship Council Luncheon: Surgical Skills and Competencies

Session Chair: Maurice Arregui, MD

SESSION DESCRIPTION
Surgical Skills and Competencies expected of Fellows by Fellowship Council Program directors: How Close Are We to Expectations Based on an Analysis of a Survey of Program Directors?

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

- Understand the areas of weakness in general surgery training
- Recognize the areas of adequate preparedness of finishing General Surgery Resident
- Suggest adjustments in General Surgery Residency Training
- Guide Fellowship program directors toward fulfilling gaps in Surgical training to better prepare Fellows for private or academic careers
- Provide data to the ACGME to understand the impact they have on General Surgery Residency training and subsequent current need for extended training provided by Fellowship Council Fellowships

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
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<tbody>
<tr>
<td>12:30PM</td>
<td>Background On Fellowship Council Survey Of Program Directors On Preparedness Of Finishing</td>
<td>Samer Mattar, MD</td>
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<td></td>
<td>General Surgery Residents Starting Fellowship Council Fellowships</td>
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<tr>
<td>12:40PM</td>
<td>Fellowship Council Analysis Of Starting Fellow Preparedness To Start Fellowships In Surgery: Methods</td>
<td>Adnan Alseidi, MD</td>
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<td></td>
<td>And Results</td>
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<td>12:55PM</td>
<td>American Board Of Surgery Analysis Of The Preparedness Of The Finishing General Surgery Resident</td>
<td>David Mahvi, MD</td>
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<tr>
<td>1:10PM</td>
<td>Goals Of ACGME To Improve General Surgery Residency Competency In The Years Ahead</td>
<td>John Potts, MD</td>
</tr>
</tbody>
</table>

LEARNING THEME
- Academic/Educational

Bariatric and Pediatric Emergencies for the non-Bariatric, non-Pediatric Surgeon

Session Chair: Daniel Herron, MD; Session Co-Chair: Gretchen Purcell-Jackson, MD, PhD

SESSION DESCRIPTION
Many general and laparoscopic surgeons serve as generalists or specialize in areas outside bariatric and pediatric surgery. Yet, when covering the emergency department, these same surgeons may be called upon to manage GI surgical emergencies in these populations. This didactic session is designed to orient the surgeon who does not specialize in bariatric or pediatric surgery to the unique gastrointestinal emergencies these patients may present with.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:

- Identify the most common causes of abdominal pain in the bariatric surgical patient
- Apply this knowledge to improve management of the bariatric patient presenting to the emergency department with abdominal pain
- Identify the most common causes of abdominal pain in the pediatric surgical patient
- Apply this knowledge to improve management of the pediatric patient presenting to the emergency department with abdominal pain

SESSION OUTLINE

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<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>1:30PM</td>
<td>Welcome &amp; Introduction</td>
<td>Daniel Herron, MD; Gretchen Purcell-Jackson, MD, PhD</td>
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<tr>
<td>1:35PM</td>
<td>The Gastric Bypass Patient with Abdominal Pain</td>
<td>Daniel Herron, MD</td>
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<tr>
<td>1:55PM</td>
<td>The Bypass or Lap Band Patient with Vomiting: Strictures and Slips</td>
<td>Raul Rosenthal, MD</td>
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<tr>
<td>2:15PM</td>
<td>Malrotation with Midgut Volvulus</td>
<td>Diana Diesen, MD</td>
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<tr>
<td>2:35PM</td>
<td>Intussusception</td>
<td>Kevin Mollen, MD</td>
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<tr>
<td>2:55PM</td>
<td>Concluding remarks</td>
<td>Daniel Herron, MD; Gretchen Purcell-Jackson, MD, PhD</td>
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</table>

LEARNING THEME
- Bariatrics
- Professional/Economic
Friday, April 19, 2013
Scientific Sessions & Panels

Scientific Session/Concurrent Sessions (accepted oral & video presentations)

Emerging Technology Session
Session Chair: Yoav Mintz, MD; Session Co-Chair: Dmitry Oleynikov, MD

ROOM 327

SAGES does not offer CME for this session.

SESSION DESCRIPTION
For the 9th year, SAGES, as part of the SAGES Technology Initiative, will present the Emerging Technology Session. Surgeons, physicians, scientists from academic centers as well as industry are invited to submit abstracts for consideration. Submissions that reflect “late breaking”, “cutting-edge” or novel information are greatly encouraged. Submission of preliminary results for new technologies is encouraged as well.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
• Understand the need for innovations in MIS
• Understand the complexity of developing new MIS devices
• Implement new techniques in MIS into their daily practice

ET001 STEREOSCOPIC AUGMENTED REALITY FOR LAPAROSCOPIC SURGERY Xin Kang, Wilson Emmanuel, Kyle Wu, Aaron Martin, Timothy Kane, Craig A. Peters, Kevin Cleary, Raj Shekhar, Shekhar Zayed Institute for Pediatric Surgical Innovation, Children’s National Medical Center, Washington DC

ET002 INTRA-OPERATIVE BILARY MAPPING DURING LAPAROSCOPIC CHOLECYSTECTOMY USING INDOCYANINE GREEN AND NEAR INFRARED FLUORESCENT CHOLANGIOGRAPHY Mark R Wendling, MD, James D Vargo, Joseph M Drosdeck, MD, W. Scott Melvin, MD, Vimal K Narula, MD; The Ohio State University Wexner Medical Center

ET003 EMBEDDED, MINIATURIZED AND DISTRIBUTED CONTROL FOR A COLONOSCOPY ROBOTIC PLATFORM Luigi Manfredi, PhD, Alfred Cuschieri, Professor; The Institute for Medical Science and Technology, University of Dundee, UK

ET004 TOTALLY ENDOSCOPIC GASTRIC PLICATION USING A NOVEL ENDOSCOPIC STAPLER Santiago Horpao, Alejandro Grigaite, Pablo Omelanzuk, Veronica Gorodner, Rudolf Buchhoedvend, Rodrigo Ongay; UCSF, Hospital Aleman de Buenos Aires, Hospital Italiano de Mendoza. Programa Unidades Bariatricas

ET005 IN-VIVO 3D SURFACE RECONSTRUCTION AND CT REGISTRATION FOR MINIMALLY INVASIVE SURGERY Jaime E Sanchez, MD, Bingxiong Lin, Adrian Johnson, Yu Sun, PhD, Xiaoning Qian, PhD; University of South Florida Center for Advanced Medical Learning and Simulation

ET006 INTRAOPERATIVE BILARY MAPPING DURING LAPAROSCOPIC CHOLECYSTECTOMY USING INDOCYANINE GREEN AND NEAR INFRARED FLUORESCENT CHOLANGIOGRAPHY Fabio Priora, MD, Luca Matteo Lenti, PhD, Ferruccio Ravazzioni, PhD, Alessandra Marano, MD, Giulio Argenio, MD, Giuseppe Spinoglio, MD; Surgical Department - Unito of General and Oncologic Surgery - Ss. Antonio e Biagio Hospital

ET007 VALIDATION OF A 3-D SURGICAL NAVIGATION SYSTEM FOR LAPAROSCOPIC LIVER ABLATION PROCEDURES USING A HUMAN CADAVER MODEL Chet W Hammill, MD, Maria A Cassera, Logan W Clements, PhD, Prashanth Dumpuri, PhD, James D Stefanics, PhD; Liver and Pancreas Surgery Program, Providence Medical Center, Portland, OR and Pathfinder Technologies, Inc., Nashville, TN

ET008 USING OPEN SOURCE TECHNOLOGIES TO DEVELOP LOW COST SURGICAL SIMULATORS Shamyl B Mansoor, Zohaib Amjad, Asif Zafar, Dr; National University of Sciences and Technology, Holy Family Hospital

ET009 WITHDRAWN.

ET010 ENDOLUMINAL GREATER CURVATURE PLICATION – A CASE SERIES Manoel Galvão Neto, MD, Natan Zundel, MD, Joseember M Campos, MD, Alonso Alvarado, MD, Lyc B Silva, MD, Jorge Orillac, MD, Sohail Shaikh, MD, Eddie Gomez, MD, Erik Wilson, MD, Christopher Thompson, MD; Gastro Obeso Center, SP, Brazil; Florida International University, Miami, FL, USA; Universidade Federal de Pernambuco, Brazil; Clinica Hospital San Fernando, Panamá; Brigham and Women's Hospital, Boston, MA, USA

ET011 REAL-TIME LAPAROSCOPIC IMAGERY ENHANCEMENT AND CLARIFICATION Mahmoud Abu Gazala, MD, Jack Wade, Rick Hier, PhD, Randal Millar, BSEE, Chuck Siewert, BSEE, Yoav Mintz, MD; Department of Surgery, Hadassah University Medical Center, Jerusalem, Israel.

ET012 ROLE SPECIFIC VIEWS FOR LAPAROSCOPIC SURGERY Timothy W Perez, MD, MPH, Marius Pattichis, PhD, Yuebing Jiang, PhD, Bilal Khan, MD, University of New Mexico, Department of Surgery, Dept of Electrical and Computer Engineering

ET013 FIRST CLINICAL EXPERIENCE WITH THE TRANSPYLORIC SHUTTLE (TPS®) DEVICE, A NON-SURGICAL ENDOSCOPIC TREATMENT FOR OBESITY: RESULTS FROM A 3-MONTH AND 6-MONTH STUDY George Marinos, MBBS, FRACP, MD, Frank Greenway, MD, Chris Eliades, MBBS, V. Raman Muthusamy, MD, Kobi Iki, MS, Cliff Kline, Hugh L Narciso, MSc, Daniel Burnett, MD; Prince of Wales Private Hospital (Sydney, NSW, AUS); BAROnova, Inc. (Goleta, CA, USA)

*SAGES acknowledges our Gold Level Donor for their support of this session: Intuitive Surgical

www.sages2013.org | Twitter: @SAGES_Updates
Pancreas Panel – Current Controversies in Minimally Invasive Pancreatic Surgery

Session Chair: R. Matthew Walsh, MD; Session Co-Chair: L. William Traverso, MD

SESSION DESCRIPTION
The session will review the state of the evidence supporting resection using minimally invasive surgery (MIS) for pancreatic diseases. The session will first focus on Level One evidence for distal and then for proximal pancreatectomy (Whipple Operation), technical aspects of the procedures and then focus on two specific diseases that commonly confront the MIS surgeon – IPMN and neuroendocrine tumors.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
• Formulate an opinion if the MIS pancreatic resection technology is ready for primetime for your patients and medical center.
• Identify technical pitfalls of MIS pancreatic surgery
• List the recognized indications for pancreatic cystic neoplasms
• Reference an algorithm for resection criteria of pancreatic benign disease such as neuroendocrine tumors and intraductal papillary mucinous tumors of the pancreas
• Understand the natural history and approach to care of patients with nonfunctioning PNET
• List the technical approaches to remove a portion of the pancreas

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>1:30PM</td>
<td>Evidence Based Medicine Summary for the MIS Surgeon – Distal and Proximal Pancreatectomy</td>
<td>A. James Moser, MD</td>
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<tr>
<td>1:40PM</td>
<td>Opinion – Is MIS Pancreaticoduodenectomy Ready For Primetime?</td>
<td>Horacio Asbun, MD</td>
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<tr>
<td>1:50PM</td>
<td>Tips and Tricks for Distal Pancreatectomy - Video</td>
<td>Attila Nakkeb, MD</td>
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<td>2:00PM</td>
<td>Tips and Tricks (1) for Pancreatectomy - Video</td>
<td>Sricharan Chalikonda, MD</td>
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<tr>
<td>2:10PM</td>
<td>Tips and Tricks (2) for Pancreatectomy - Video</td>
<td>Piero C. Giulianotti, MD</td>
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<tr>
<td>2:20PM</td>
<td>Discussion</td>
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<tr>
<td>2:40PM</td>
<td>Case Scenarios – Neuroendocrine Tumors (NET) of the Pancreas</td>
<td>L. William Traverso, MD</td>
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<td>2:45PM</td>
<td>Evidence Based Criteria For Resection Of Nonfunctioning Neuroendocrine Tumors</td>
<td>Gary Vitale, MD</td>
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<td>2:55PM</td>
<td>Discussion</td>
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<tr>
<td>3:00PM</td>
<td>Case Presentations - IPMN</td>
<td>L. William Traverso, MD</td>
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<tr>
<td>3:10PM</td>
<td>Evidence Based Criteria for Resection - IPMN</td>
<td>R. Matthew Walsh, MD</td>
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<td>3:20PM</td>
<td>Discussion</td>
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LEARNING THEME
HPB 60 HPB/Solid Organ

Scientific Session/Concurrent Sessions

1:30PM - 3:30PM

Concurrent Session SS10 Foregut

Moderators: Mark Talamin, MD & Shonana Ross, MD

S059 OUTCOME FOLLOWING LAPAROSCOPIC TRANS-HIATAL ESOPHAGECTOMY FOR ESOPHAGEAL CANCER | Cash, MD, J Zehetner, MD, MMM, Babek Heyadati, Peter F Crookes, MD, Namir Kakhouda, MD, Rodney J Mason, MD, John C Lipham, MD; University of Southern California Department of Surgery, Keck Medical Center of USC

S060 PRE-OPERATIVE EVALUATION OF GASTRIC GASTROINTESTINAL STROMAL TUMORS: ENDOSCOPIC ULTRASOUND VS CT SCAN | Williams, MD, MS, J F Bradley, MD, B A Wormer, MD, D Banerjee, A L Walters, MS, K T Dacey, MHA, A E Lincourt, PhD, MBA, B T Heniford, MD; Carolinas Medical Center

S061 PHARYNGEAL PH MONITORING BETTER PREDICTS A SUCCESSFUL OUTCOME FOR EXTRA-ESOPHAGEAL REFLUX SYMPTOMS AFTER ANTI-REFLUX SURGERY | Worrall, MD, Steven R DeMeester, MD, Daniel S O., MD, Jeffrey A Hagen, MD; Department of Surgery, Keck School of Medicine, University of Southern California, Los Angeles, CA

S062 URGENT LAPAROSCOPIC REPAIR OF ACUTELY ASYMPTOMATIC PEH IS SAFE AND EFFECTIVE | David M Parker, MD, FACS, Amrit A Rambhajan, MD, Anna R Bele, MD, Kathleen Johanson, DO, Vladin Obradovic, MD, Jon D Gabrielsen, MD, FACS, Anthony T Petrick, MD, FACS; Geisinger Medical Center

S063 DIAPHRAGMATIC RELAXING INCISIONS DURING LAPAROSCOPIC PARAESOPHAGEAL HERNIA REPAIR | Christina L Greene, MD, Steven R DeMeester, MD, Joerg Zehetner, MD, Daniel S Oh, MD, Jeffrey A Hagen, MD; Keck Hospital of the University of Southern California, Los Angeles, CA

S064 OUTCOMES OF MINIMALLY INVASIVE SURGERY FOR EARLY GASTRIC CANCER IS COMPAREABLE TO OPEN SURGERY – ANALYSIS OF 1,013 MIS AT A SINGLE INSTITUTE | Seung-Young Oh, MD, Sebastianus Kwon, MD, Yun-Sukh Suh, MS, Hwi-Young Choe, RN, Seong-Ho Kong, MD, MS, Hyuk-Joon Lee, MD, PhD, Woo Ho Kim, MD, PhD, Han-Kwang Yang, MD, PhD; Seoul National University Hospital
Friday, April 19, 2013

S065 COMPARISON OF EGJ DISTENSIBILITY CHANGES DURING POEM AND HELLER MYOTOMY USING INTRAOPERATIVE ENDOSFLIP Ezra N Teitelbaum, MD, Lubomyr Boris, BS, Fahd O Arafat, MD, Frederic Nicodeme, MD, Peter J Kahrilas, MD, John E Fandolfino, MD, Nathaniel J Soper, MD, Eric S Hungness, MD; Northwestern University

V019 LAPAROSCOPIC ENucleATION OF A BRONCHOCYSTIC CYST OF ESOPHAGUS Pablo Omelanczuk, Martin Berducci, P Gomez, MD, M Masrur, MD, J Nefa, MD; Division of General and Minimally Invasive Surgery, Department of Surgery, Italian Hospital of Mendoza, Mendoza, ARGENTINA

V020 LAPAROSCOPIC ENucleATION OF A HORSESHOE-SHAPED LEIOMYOMA OF THE LOWER ESOPHAGUS Demetrio Cavadas, MD, Roberto E Remolo, MD, Alfredo Amenabar, MD, Agustin Duro, MD, Fernando G Wright, MD, Axel F Beskow, MD; Hospital Italiano de Buenos Aires

V021 LAPAROSCOPIC DISTAL GASTRECTOMY WITH D2 LN DISSECTION IN ADVANCED GASTRIC CARCINOMA Kyoko Young Song, MD; Seoul St Mary’s Hospital

S066 LOWER ESOPHAGEAL SPHINCTER (LES) ELECTRICAL STIMULATION ELIMINATES PROXIMAL ESOPHAGEAL ACID EXPOSURE IN PATIENTS WITH GERD – ONE YEAR RESULTS. Michael D Crowell, PhD, Leonardo Rodriguez, MD, Edy Soffer, MD; Mayo Clinic in Arizona, Surgery, CCO Oesaidad Y Diabetes, University of Southern California

S067 INCIDENCE, MECHANISMS, AND OUTCOMES OF ESOPHAGEAL AND GASTRIC PERFORATION DURING LAPAROSCOPIC FOREGUT SURGERY: A RETROSPECTIVE REVIEW OF 1223 CASES Linda P Zhang, MD, Ronald Chang, BA, Brent D Matthews, MD, Michael Awad, MD, Bryan Meyers, MD, J. Chris Eagon, MD, L. Michael Brunt, MD; Washington University

S068 COMPLETELY LAPAROSCOPIC TOTAL GASTRECTOMY FOR EARLY AND ADVANCED GASTRIC CARCINOMA Fabrizio Moinian, MD, Enrique Norero, MD, José Galindo, MD, Fernando Crovani, MD, Nicolas Jarufe, MD, Eduardo Vinuela, MD, Sergio Báez, MD, Pérez Gustavo, MD, Camilo Boza, MD, Alex Escalona, MD, Ricardo Funke, MD; Hospital Clínico Pontificia Universidad Católica de Chile. Hospital Dr. Sotero del Río

Concurrent Session SS11 Colorectal Abstract & Podium Presentations III

BALLROOM II

Moderators: Conor Delaney, MD, PhD & John Coller, MD

S069 LAPAROSCOPIC VERSUS OPEN RESECTION FOR COLON CANCER BASED ON 9-YEAR DATA: RESULTS OF OUR HOSPITAL STUDY IN 1065 PATIENTS. Akio Matsumoto, MD, Kaida Arita, MD, Tetsuya Tajima, MD, Tomohiro Narita, MD, Masashi Okuda, MD, Hisashi Fujiwara, MD, Masaki Tashiro, MD, Shigee Haruki, MD, Shinsuke Usui, MD, Koji Ito, MD, Noriaki Takiguchi, MD, Susumu Hiranuma, MD, Katuihiro Sanada, MD; Tsuchiura Kyodo General Hospital

S070 MINIMALLY INVASIVE COLECTOMY FOR COMPLICATED DIVERTICULAR DISEASE IN THE EMERGENCY SETTING: A SAFE CHOICE? Francois Letarte, MD, Hallet Julie, MD, Roger C Grégoire, MD, FRSCS, Jean-Pierre Gagné, MD, FRSCS, Alexandre Bouchard, MD, FRSCS, Driote Sebastien, MD, FRSCS, Philippe Bouchard, MD, FRSCS, Claude Thibault, MD, FRSCS; Hôpital Saint-François d’Assise, CHUQ

V022 LAPAROSCOPIC LOW ANTERIOR RESECTION WITH EN BLOC SMALL BOWEL RESECTION AND DIFFICULT TAKEDOWN OF THE SPLENIC FLEXURE Deborah S Keller, MD, Justin K Lawrence, MD, Conor P Delaney, MD, MCh, PhD; University Hospital- Case Medical Center

S071 LAPAROSCOPIC VERSUS OPEN PARASTOMAL HERNIA REPAIR: AN ACS-NSQIP ANALYSIS OF SHORT-TERM OUTCOMES Wissam J Halabi, MD, Mehraneh D Jafari, MD, Vinh Q Nguyen, PhD, Joseph C Carmichael, MD, FACS, FASCRS, Steven Mills, MD, FACS, FASCRS, Michele J Stamos, MD, FACS, FASCRS, Alessio Pigazzi, MD, PhD, FACS; University of California-Irvine, Medical Center Department of Surgery

S072 NATIONAL DISPARITIES IN LAPAROSCOPIC PROCEDURES FOR COLON CANCER Monirah Al Nasser, MD, Eric Schneider, PhD, Susan Gearhart, MD, Elizabeth Wick, MD, Sandy Fang, MD, Adil Haider, MD, MPH, Jonathan Efron, MD, Johns Hopkins University

S073 SHORT-TERM RESULTS OF RANDOMIZED STUDY BETWEEN LAPAROSCOPIC AND OPEN SURGERY IN ELDERLY COLORECTAL CANCER PATIENT (ELD LAP STUDY) Shoichi Fujiy, PhD, MD, Atsushi Ishibe, PhD, MD, Mitsuoshio Ota, PhD, MD, Shigeru Yamagishi, MD, PhD, Kazuteru Watanabe, PhD, MD, Jun Watanabe, PhD, MD, Amane Kanazawa, MD, Yasushi Ichikawa, PhD, MD, Mari Saito, PhD, Satoshi Morita, Ph, D, Chikara Kunisaki, PhD, MD, Itaru Endo, PhD, MD; Yokohama City University Medical Center

V023 LAPAROSCOPIC TOTAL MRESORECTAL EXCISION IN POST CHEMO-RADIOThERAPY RECTUM - STANDARDISED TECHNIQUE N Siddiqi, Mr. S Zeidain, Mr, B Barry, Mr, J Khan, Mr, A Parvaiz, Professor; Queen Alexandra Hospital

S074 PREDICTING WHO WILL FAIL EARLY DISCHARGE AFTER LAPAROSCOPIC COLORECTAL SURGERY WITH AN ESTABLISHED RECOVERY PATHWAY Deborah S Keller, MD, Blake Bankwitz, MS, Justin K Lawrence, MD, Brad J Champagne, MD, FACS, Harry L Reynolds, Jr., MD, Sharon L Stein, MD, FACS, Conor P Delaney, MD, MCh, PhD; University Hospitals-Case Medical Center

V024 LAPAROSCOPIC PANPROCOTOCECTOMY AND ILEO-ANAL POUCCH IN ULCEARTIVE COLITIS N Siddiqi, Mr. S Zeidain, Mr, B Barry, Mr, J Khan, Mr, A Parvaiz, Professor; Queen Alexandra Hospital

S075 LAPAROSCOPIC COMPLETE MESOCOLIC EXCISION (CME) FOR COLON CANCER: STUDY DESIGN AND PRELIMINARY OUTCOME FROM AN RANDOMIZED CONTROLLED TRIAL NCT01628250 Bo Feng, MD, Aigo Lu, MD, Mingliang Wang, MD, Junjun Ma, MD, Minhua Zheng, MD; Surgery Department of Ruijin Hospital, Shanghai Minimally Invasive Surgery Center,Shanghai Jiaotong University School of Medicine

S076 THE USE OF NASOGASTRIC TUBE DECOMPRESSION IN THE ERA OF MINIMALLY INVASIVE SURGERY Noam Shussman, MD, Maria Brown, Michael C Johnson, Giovanna da Silva, MD, Steven D Wexner, MD, Eric G Weiss, MD; Cleveland Clinic Florida

V025 LAPAROSCOPIC SINGLE INCISION RIGHT HEMICOLECTOMY R Parthasarathi, MD, P Praveen Raj, MD, P Senthilnathann, MD, FACS, S Rajapandian, MD, N Anand Vijay, MD, O Palanivelu, MD, FACS; GEM Hospital Hospital & Research Centre
Friday, April 19, 2013

**Multidisciplinary Future of Surgery**

**Session Chair:** Steve Eubanks, MD; **Session Co-Chair:** Daniel Scott, MD

**SESSION DESCRIPTION**

The convergence of different medical specialties has facilitated the evolution of new procedures and approaches to diseases cross-pollination from non-medical fields will open new horizons for surgeons.

**SESSION OBJECTIVES**

At the conclusion of this session, participants will be able to:

- Apply procedures and techniques from other specialties to advance care
- Improve options for treatments
- Describe techniques and technologies that could be incorporated into future surgical care

**SESSION OUTLINE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:00 PM</td>
<td>Introduction</td>
<td>Daniel Scott, MD; Steve Eubanks, MD</td>
</tr>
<tr>
<td>3:05 PM</td>
<td>The convergence of Therapeutic Endoscopy and MIS</td>
<td>Robert Hawes, MD</td>
</tr>
<tr>
<td>3:20 PM</td>
<td>The Future of Surgery - A Perspective from the Department of Defense</td>
<td>Richard Satava, MD</td>
</tr>
<tr>
<td>3:35 PM</td>
<td>The Future of Surgical Robotics</td>
<td>Katherine Kuchenbecker, PhD</td>
</tr>
<tr>
<td>3:50 PM</td>
<td>Integrating Future Technologies into Today’s OR</td>
<td>Jaques Marescaux, MD</td>
</tr>
<tr>
<td>4:05 PM</td>
<td>Developing Multidisciplinary Teams for Real-time Research and Innovation</td>
<td>Bruce Ramshaw, MD</td>
</tr>
<tr>
<td>4:20 PM</td>
<td>Panel Discussion</td>
<td></td>
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</tbody>
</table>

**LEARNING THEME**

- **AE** Academic/Educational
- **NS** New technologies/skills acquisition
- **PE** Professional/Economic

**GUIDELINES**

- Endoluminal Treatments for Gastroesophageal Reflux Disease (GERD)

*SAGES acknowledges an educational grant in support of this session from Stryker Endoscopy*

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**Happy (Half) Hour Break in Exhibit Hall**

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**Scientific Session: Resident/Fellow Presentations**

**Session Chair:** Tung Tran, MD; **Session Co-Chair:** Vanessa Palter, MD

**SESSION DESCRIPTION**

In this session, residents and fellows will present their clinical and basic science research to a panel of prominent faculty who are respected in the fields of minimally invasive / bariatric surgery, flexible gastrointestinal endoscopy, and surgical education. After each presentation, panelists will rank each speaker with regard to study content and originality, design and methodology, interpretation of results, and overall presentation skills. Awards will be given to the top two presenters at the conclusion of the session.

**SESSION OBJECTIVES**

At the conclusion of this session, participants will be able to:

- Identify challenges and pitfalls in research design, methodology, and critical review of results
- Discuss these challenges and pitfalls in order to improve future study design
- Recognize optimum communication skills in terms of a 10 minute presentation
- Acquire an appreciation for the depth and breadth of research conducted by surgical residents and fellows

**SESSION OUTLINE**

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tr>
<td>3:30 PM</td>
<td>Introduction</td>
<td>Tung Tran, MD</td>
</tr>
<tr>
<td>3:35 PM</td>
<td>Resident/Fellow presentations</td>
<td>Vanessa Palter, MD</td>
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<tr>
<td>5:30 PM</td>
<td>Adjourned</td>
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**Expert Panelists:**

- Shara Ross, MD, Edward Phillips, MD Steven Schwartzberg, MD, Jo Buyske, MD, Daniel Deziel, MD

**S112 LAPAROSCOPIC VS. OPEN ELECTIVE REPAIR OF PRIMARY UMBILICAL HERNIAS: A REVIEW OF THE ACS NSQIP DATABASE**

- Cassie, MD, FRCSC, A. Okrainec, MDCM, MHPE, FACS, FRCSC, F. Saleh, MD, FRCSC, F. A. Quereshy, MD, MBA, FRCSC, T. D. Jackson, MD, MPH, FRCSC, Department of Surgery, University of Toronto, Toronto, ON, Canada
Foregut – Myth Meets Reality

Session Chair: Vic Velanovich, MD; Session Co-Chair: Prat Vemulapalli, MD

SESSION DESCRIPTION

This session will discuss common practices and beliefs in the surgical literature when dealing with paraesophageal hernias and other gastric pathologies. The goal of the session is to provide the literary support and practical rationale for correct practices and reinforce standard of care consensus when it exists.

SESSION OBJECTIVES

At the conclusion of this session, participants will be able to:

• List the difference between biologic and synthetic mesh for hiatal hernias and the pitfalls of each
• Understand which subsets of patients most benefit from Fundoplication vs. Medical therapy and the long-term data on GERD related complications
• Determine which subsets of patients will need a vagotomy
• Clearer understanding of the performance of a truncal vs selective vagotomy
• Determine when gastroparesis is a surgical disease and able to pick the best intervention for a particular patient
• Determine which patients are appropriate for H. Pylori eradication and be able to discuss the potential harm of wide spread H. Pylori eradication

SESSION OUTLINE

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<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>4:00PM</td>
<td>PPI's Are Just As Good As Antireflux Surgery For GERD</td>
<td>Christy Dunst, MD</td>
</tr>
<tr>
<td>4:15PM</td>
<td>Mesh is Mandatory For PEH</td>
<td>Rebecca Petersen, MD</td>
</tr>
<tr>
<td>4:30PM</td>
<td>A Pyloroplasty Is Always Required For A Patient With Delayed Gastric Emptying Undergoing A Nissen</td>
<td>Steven Goldin, MD, PhD</td>
</tr>
<tr>
<td>4:45PM</td>
<td>Helicobacter Pylori Should Be Sought And Eradicated</td>
<td>Jenny Choi, MD</td>
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<tr>
<td>5:00PM</td>
<td>Vagotomy Is Necessary In The Surgical Treatment Of Peptic Ulcer Disease</td>
<td>Dean Mikami, MD</td>
</tr>
<tr>
<td>5:15PM</td>
<td>Panel Discussion</td>
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</table>

LEARNING THEME

Foregut

GUIDELINES

• Surgical Treatment of Gastroesophageal Reflux Disease (GERD)
Acute Care Laparoscopy
Session Chair: Lena M. Napolitano, MD; Session Co-Chair: Raymond Onders, MD

SESSION DESCRIPTION
Laparoscopy is commonly used in emergency surgery, and its indications are expanding. The acute care surgeon needs to be proficient in minimally invasive techniques for the treatment of emergency surgical diseases. This session will review practical recommendations for laparoscopic techniques in acute care surgery to provide a basis for best practice in the clinical conditions of perforated ulcer, C. difficile colitis, bowel obstruction, incarcerated hernia, necrotizing infected pancreatitis, and appendicitis.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
• Recognize how minimally invasive surgical techniques can be used in the treatment of emergency surgical conditions including C. difficile colitis and necrotizing infected pancreatitis
• Review the evidence regarding the impact of minimally invasive surgical techniques on patient outcomes in emergency surgery diseases
• Use best surgical practices to treat emergency surgical conditions with minimally invasive approaches, including minimally invasive retroperitoneal necrosectomy

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>4:00PM</td>
<td>Minimally Invasive Approach To Pneumoperitoneum And Perforated Ulcers</td>
<td>Kosar Khwaja, MD, MBA, MSc.</td>
</tr>
<tr>
<td>4:15PM</td>
<td>Is There A Role For Laparoscopic Management Of Acute Bowel Obstructions And</td>
<td>Raymond P. Onders, MD</td>
</tr>
<tr>
<td></td>
<td>Incarcerated Hernias?</td>
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<tr>
<td>4:30PM</td>
<td>Minimally Invasive Management Of Colorectal Problems Including C. Difficile Colitis</td>
<td>Brian Zuckerbraun, MD</td>
</tr>
<tr>
<td>4:45PM</td>
<td>Minimally Invasive Strategies For Treatment Of Necrotizing Infected Pancreatitis</td>
<td>Kenneth K. W. Lee, MD</td>
</tr>
<tr>
<td>5:00PM</td>
<td>Appendectomy And Cholecystectomy- Standard, Mini Trocars, Or Single Site</td>
<td>B. Todd Heniford, MD</td>
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<tr>
<td></td>
<td>Laparoscopy: Does It Matter?</td>
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<tr>
<td>5:15PM</td>
<td>Discussion</td>
<td>Panel</td>
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</tbody>
</table>

* Each talk is 10 min with 5 min Q&A following

LEARNING THEME
- NS  New technologies/skills acquisition
- HPB SO  HPB/Solid Organ
- C  Colorectal
- HP  Hernias
- FG  Foregut

GUIDELINES
- Laparoscopic Appendectomy
- Diagnostic Laparoscopy

SAGES acknowledges an educational grant in support of this session from Olympus America Inc.
SAGES/ISLCRS Panel – Colorectal Robotics: The 2013 Update
Session Chair: Seon-Han Kim, MD; Session Co-Chair: Vincent Obias, MD

SESSION DESCRIPTION
We will discuss current updates to clinical trials and new technology in robotics. Essential robotic colorectal techniques and skills will be reviewed.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
- Understand current status of various trials assessing robotics in colon and rectal surgery
- Describe training issues, how to set-up and dock using the surgical robot, and describe new technologies
- Describe basic and advanced procedures in robotic colon and rectal surgery

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>4:00PM</td>
<td>Update On Multicenter Trials (ROLARR and CORLAR)</td>
<td>Gyu-Seog Choi, MD</td>
</tr>
<tr>
<td>4:09PM</td>
<td>Training/Learning Issues In Robotic Colorectal Surgery</td>
<td>Sonia Ramamoorthy, MD</td>
</tr>
<tr>
<td>4:18PM</td>
<td>Update And Clinical Evidence On Nerve Preservation In Robotic Rectal Surgery</td>
<td>Fabrizio Luca, MD</td>
</tr>
<tr>
<td>4:27PM</td>
<td>Robotic TME Dissection</td>
<td>Seon-Han Kim, MD</td>
</tr>
<tr>
<td>4:30PM</td>
<td>Robotic Right Hemicolectomy</td>
<td>Henry Lujan, MD</td>
</tr>
<tr>
<td>4:45PM</td>
<td>Robotic Single Port Colectomy</td>
<td>Vincent Obias, MD</td>
</tr>
<tr>
<td>4:54PM</td>
<td>Robotic Transanal Specimen Retrieval and Single-Stapled Rectal Anastomosis</td>
<td>Slawomir Marecik, MD</td>
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<tr>
<td>5:03PM</td>
<td>Robotic Transanal Surgery</td>
<td>Sergio Larach, MD</td>
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<tr>
<td>5:12PM</td>
<td>Robotic APR</td>
<td>Meagan Costedio, MD</td>
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<tr>
<td>5:21PM</td>
<td>Panel Discussion</td>
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</tbody>
</table>

LEARNING THEME
- AE Academic/Educational
- NS New technologies/skills acquisition
- C Colorectal

GUIDELINES
- A Consensus Document on Robotic Surgery
- Laparoscopic Resection of Curable Colon and Rectal Cancer

SAGES/CAGS Session: Ultimate SAGES
Session Chair: Christopher M. Schlachta, MD

SESSION DESCRIPTION
Ultimate SAGES is the culmination of an international, open competition for the SAGES Candidate member with the broadest and deepest knowledge of the core principles, fundamentals, evidence, safety and best practice in gastrointestinal endoscopic surgery. This session, in live quiz show format, will be the final competition of qualifying finalists to crown the inaugural Ultimate SAGES champion.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
- Understand key principles in gastrointestinal surgery
- Enhance their knowledge and awareness of the fundamentals of endoscopic and laparoscopic surgery
- Understand key safety issues for the use of surgical technologies
- Update their awareness of current therapies for gastrointestinal disease

SESSION OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:30PM</td>
<td>Introduction and Objectives of Ultimate SAGES</td>
<td>MODERATOR: Christopher Schlachta, MD</td>
</tr>
<tr>
<td>4:40PM</td>
<td>Ultimate SAGES</td>
<td>Top three Qualifying SAGES candidate members</td>
</tr>
</tbody>
</table>

LEARNING THEME
- PE Professional/Economic

GUIDELINES
- ALL Guidelines and Fundamentals programs
Friday, April 19, 2013

Meet the Leadership Reception for Residents, Fellows & New Members
Location: Tatu Asian Restaurant at Power Plant Live! (see page 87 for details)

6:30PM - 7:30PM
*Included in Registration SuperPass (Option A)
TATU ASIAN RESTAURANT @ POWER PLANT LIVE!

Don’t miss the
SAGES Gala – An Evening at the Power Plant Live!
Featuring: The 16th Annual International Sing-Off

7:30PM - 11:30PM
*Included in Registration SuperPass (Option A)
POWER PLANT LIVE!
<table>
<thead>
<tr>
<th>START</th>
<th>END</th>
<th>SESSION</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Session: Advancements in Military Surgery</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Session: Career Development</td>
<td>Room 327</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Concurrent Session SS12 SAGES Potpourri</td>
<td>Room 318</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Concurrent Session SS13 Obesity II</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:30 AM</td>
<td>Concurrent Session SS14 Outcomes</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>1:00 PM</td>
<td>SAGES Mini-Med School Boot Camp for HS Students</td>
<td>Room 339</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>11:30 AM</td>
<td>SS15 Plenary Session II</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>1:00 PM</td>
<td>Exhibits, Poster Session, Learning Center Open</td>
<td>Exhibit Hall E</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>1:00 PM</td>
<td>SAGES Annual General Membership Business Meeting – All SAGES Members Encouraged to Attend!</td>
<td>Room 327</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>1:00 PM</td>
<td>FREE LUNCH for All Attendees</td>
<td>Exhibit Hall E</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:30 PM</td>
<td>Symposium: Essentials of Robotic Surgery</td>
<td>Ballroom III &amp; IV</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:30 PM</td>
<td>Panel: Management of GIST Tumors</td>
<td>Ballroom I</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:30 PM</td>
<td>Session: SAGES/AORN – Patient Safety Checklist – Time Out and Huddle</td>
<td>Ballroom II</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:30 PM</td>
<td>Concurrent Session SS16 Education/Simulation</td>
<td>Room 318</td>
</tr>
</tbody>
</table>
### Career Development Seminar

**Session Chair:** Aurora Pryor, MD; **Session Co-Chair:** Leena Khaitan, MD

**SESSION DESCRIPTION**
This session provides the tools for junior or upcoming faculty members to succeed in practice. It addresses finding a job, how to negotiate for your position and how to set yourself up for promotion and career advancement. Grant writing, manuscript preparation and speaking will also be addressed.

**SESSION OBJECTIVES**
At the conclusion of this session, participants will be able to:
- Delineate promotion criteria and assess how to prioritize for success
- Effectively identify and negotiate for an academic position
- Plan, implement, fund, publish and present research

**SESSION OUTLINE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00AM</td>
<td>Introduction</td>
<td>Aurora Pryor, MD</td>
</tr>
<tr>
<td>8:05AM</td>
<td>Designing and Implementing a Research Study</td>
<td>Leena Khaitan, MD</td>
</tr>
<tr>
<td>8:15AM</td>
<td>Applying for Grants and The Grant Review Process</td>
<td>Dana Telem, MD</td>
</tr>
<tr>
<td>8:25AM</td>
<td>Constructing a Scientific Manuscript</td>
<td>Karen Horvath, MD</td>
</tr>
<tr>
<td>8:35AM</td>
<td>How to Give a Good Talk</td>
<td>Dave Urbach, MD</td>
</tr>
<tr>
<td>8:45AM</td>
<td>The Foundation of Effective Negotiations</td>
<td>Jeffrey Ponsky, MD</td>
</tr>
<tr>
<td>8:55AM</td>
<td>The Promotion &amp; Tenure Process</td>
<td>Jon Gould, MD</td>
</tr>
<tr>
<td>9:05AM</td>
<td>Balancing Career with Family and Personal Life</td>
<td>Julie Freischlag, MD</td>
</tr>
<tr>
<td>9:15AM</td>
<td>Partnering with Industry-The Good, the Bad and the Ugly</td>
<td>Rebecca Petersen, MD</td>
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<td>Kyle Perry, MD</td>
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**LEARNING THEME**
- **PE** Professional/Economic
- **AE** Academic/Educational

*SAGES acknowledges our Silver Level Donors for their support of this session:
*Boston Scientific, EndoGastric Solutions, Gore & Associates*

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### Advancements in Military Surgery

**Session Chair:** Robert Lim, MD; **Session Co-Chair:** Yong Choi, MD & Gordon Wisbach, MD

**SESSION DESCRIPTION**
This session will describe some of the technological advancements in surgery and medical care as they relate to military combat and combat related injuries.

**SESSION OBJECTIVES**
At the conclusion of this session, participants will be able to:
- Discuss the effects and benefits of regenerative medicine for abdominal wall reconstruction
- Recognize the possibilities and future of robotic telesurgery and the logistics of robotic telesurgery
- Realize the added benefit of better simulation with trauma training

**SESSION OUTLINE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>8:00AM</td>
<td>Regenerative Medicine For Complex Abdominal Wall Reconstruction</td>
<td>LTC Scott Rehrig, MD</td>
</tr>
<tr>
<td>8:15AM</td>
<td>Robotic Telesurgery</td>
<td>Timothy Broderick, MD</td>
</tr>
<tr>
<td>8:30AM</td>
<td>Simulation In Battlefield Medicine: Cut Suit</td>
<td>Thomas Nelson, MD</td>
</tr>
<tr>
<td>8:45AM</td>
<td>Update In Military Medicine</td>
<td>Richard Satava, MD</td>
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<tr>
<td>9:15AM</td>
<td>Discussion</td>
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</table>

* Each talk is 10 min with 5 min Q&A following

**LEARNING THEME**
- **AE** Academic/Educational
- **NS** New technologies/skills acquisition
- **HR** Hernias
Scientific Session/Concurrent Sessions

**Concurrent Session SS12 SAGES Potpourri**

**Moderators:** Bruce MacFadyen, Jr, MD & Liane Feldman

**S077 EMBRYONIC-NOTES THORACIC SYMPATHETOMY FOR PALMAR HYPERHIDROSIS: RESULTS OF A NOVEL TECHNIQUE AND COMPARISON WITH THE CONVENTIONAL VATS PRODUCTION** Weiheng Chen, MD, Lihuan Zhu, MD, Shengheng Yang, MD, Dazhoun Li, MD, Wen Wang, MD, Long Chen, MD, PhD, Department of Cardiothoracic Surgery, Fuzhou General Hospital

**S078 A RANDOMISED CONTROLLED TRIAL TO EVALUATE THE IMPACT OF INSTRUMENT AND LAPAROSCOPE LENGTH ON PERFORMANCE AND LEARNING CURVE IN SINGLE INCISION LAPAROSCOPIC SURGERY** Sathyan Balaji, BSc, Pritham Singh, MBBS, MA, MRCS, Mikael H Sodergren, MBBS, MRCS, PhD, Harry Corker, BSc, Richard M Kwasnicki, BSc, Ainsley B Freshour, MD, Sunil Ainsley, MD, Stanley Ayrton, MD, Kollider Cullen, MD, Li Chao, MD, PhD, Department of Surgery, University of Central Florida, Orlando, FL

**S079 BLEND MODE REDUCES UNINTENDED THERMAL INJURY BY MONOPOLAR INSTRUMENTS: A RANDOMIZED CONTROLLED TRIAL** Edward L Jones, MD, Thomas N Robinson, MD, Paul N Montero, MD, Henry R Govekar, MD, Gregory V Stiegmann, MD; University of Colorado School of Medicine, Aurora, CO

**S080 COMPREHENSIVE ASSESSMENT OF SKILL-RELATED PHYSICAL AND COGNITIVE ERGONOMICS ASSOCIATED WITH ROBOTIC AND TRADITIONAL LAPAROSCOPIC SURGERIES** Gyusung Lee, PhD, Mija Lee, PhD, Tameka Clinton, MS, Michael Marohn, DO; Johns Hopkins University School of Medicine, Baltimore, MD

**S081 SINGLE INCISION CHOLECYSTECTOMY: COMPARATIVE STUDY BETWEEN LAPAROSCOPIC, ROBOTIC AND SPIDER PLATFORMS.** Anthony M Gonzalez, MD, FACS, FASMBS, Juan-Carlos Verdeja, MD, FACS, Jorge R Rhabaza, MD, FACS, FASMBS, Rupa Seetharamaiah, MD, FACS, Charan Donkor, MD, FACS, Rey Romero, MD, Madomir Kosanovic, MD, Francisco Perez-Loreto, MD, Jonathan Arad, MD; Baptist Health South Florida, Florida International University

**S082 THE ERGONOMICS OF WOMEN IN SURGERY** Malika Rizvi, MD, Myra Irvin, BS, Craig Ziegler, MA, Gyusung Lee, PhD, Adrian Park, MD; Hiram C. Polk Jr. Department of Surgery, University of Louisville School of Medicine, Louisville, KY

**S083 INTRACRANIAL NEURALGIA AND COMPARISON WITH LAPAROSCOPIC REPAIR OF MAJOR INTRA-OPERATIVE VASCULAR INJURY** Gyusung Lee, PhD, Jack Choullard, MD, PhD, Jean-Baptiste Meireles, MD, Matsuo Nagata, MD, Division of Gastroenterological Surgery, Chiba Cancer Center Hospital

**S090 SPIDER PLATFORMS.** Anthony M Gonzalez, MD, FACS, FASMBS, Juan-Carlos Verdeja, MD, FACS, Jorge R Rhabaza, MD, FACS, FASMBS, Rupa Seetharamaiah, MD, FACS, Charan Donkor, MD, FACS, Rey Romero, MD, Madomir Kosanovic, MD, Francisco Perez-Loreto, MD, Jonathan Arad, MD; Baptist Health South Florida, Florida International University

**S091 CONTEMPORARY INSTRUMENT AVAILABILITY IN ADOLESCENT LAPAROSCOPIC SURGERY** Gyusung Lee, PhD, Ainsley B Freshour, MD, Sunil Ainsley, MD, Stanley Ayrton, MD, Kollider Cullen, MD, Li Chao, MD, PhD; Department of Surgery, University of Central Florida, Orlando, FL

**S092 A RATIONAL APPROACH TO CHRONIC FISTULA RECONSTRUCTION IN THE FOLLOWING SITUATIONS: 1. POST-LESIONAL FISTULA 2. POST-EMERGENCY GASTRECTOMY 3. POST-ADHESIVE ENTEROSTOMY** Ainsley B Freshour, MD, Sunil Ainsley, MD, Stanley Ayrton, MD, Kollider Cullen, MD, Li Chao, MD, PhD; Department of Surgery, University of Central Florida, Orlando, FL

**V026 TECHNIQUES FOR LAPAROSCOPIC REPAIR OF MAJOR INTRA-OPERATIVE VASCULAR INJURY** Mehran D Jafari, MD, Alessio Pigazzi, MD, PhD; University of California, Irvine

**V027 LAPAROSCOPIC EXPLORATION AND PSONAS IMPLANTATION OF THE GENITOFEMORAL NERVE FOR POST-HERNIORRHAPHY NEURALGIA** Peter S Wu, MD, Jennifer A McLellan, MD, Pranay M Parikh, MD, John R Romanelli, MD, Department of Surgery, Anne Arundel Medical Center, Annapolis, MD

**V028 LAPAROSCOPIC PANCREAS-SPARING DUODENECTOMY** Yorihiko Muto, MD, Akiko Cho, MD, Hiroshi Yamamoto, MD, Osamu Kainuma, MD, Hidehito Arimitsu, MD, Atsushi Ikeda, MD, Hiroaki Souda, MD, Yoshihiro Nabeya, MD, Nobuhiro Takiguchi, MD, Matsuo Nagata, MD; Division of Gastroenterological Surgery, Chiba Cancer Center Hospital

**V029 LAPAROSCOPIC ESOPHAGOJENOSTOMY WITH ROUX-EN-Y RECONSTRUCTION FOR CHRONIC FISTULA FOLLOWING SLEEVE GASTRECTOMY** Alexander T Loss, MD, FACS, Nelson Trelles, MD, Mohammad Al Jarallah, MD; PARIS POISSY MEDICAL CENTER

**V030 LAPAROSCOPIC REVISION OF ROUX-EN-Y GASTRIC BYPASS FOR THE TREATMENT OF A COMPLEX GASTROGASTRIC FISTULA** Axel F Beskow, MD, Agustin Duro, MD, Roberto E Remolo, MD, Alfredo Amenabar, MD, Fernandez G Wright, MD, Demetrio Cavadas, MD; Hospital Italiano de Buenos Aires

**V031 CONCOMITANT WEIGHT LOSS SURGERY AND DEFINITIVE HERNIA REPAIR** Ainsley B Freshour, MD, Sunil Sharma, MD; University of Florida - Jacksonville

**Concurrent Session SS13 Obesity II**

**Moderators:** Bruce Schirmer, MD & Ozanan Meireles, MD

**S083 LOCATION AND NUMBER OF SUTURES PLACED FOR HIATAL HERNIA REPAIR DURING LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING: DOES IT MATTER?** Nabeel R Obeid, MD, Spencer Deese-Laurent, BA, Bradley F Schwack, MD, Heeoung Youn, RN, CCRC, MA, Marina S Kurian, MD, Christine Ren Fielding, MD, George A Fielding, MD; New York University School of Medicine, New York City

**S084 ROUX-EN-Y FISTULOOJEJUNOSTOMY FOR POST-SLEEVE GASTRECTOMY FISTULA** Elke K Choullard, MD, PhD, Jean Biagini, MD, FACS, Nelson Trelles, MD, Mohammad Al Jarallah, MD; PARIS POISSY MEDICAL CENTER

**S085 REVISIONAL WEIGHT LOSS SURGERY AFTER FAILED LAPAROSCOPIC GASTRIC BANDING: AN INSTITUTIONAL EXPERIENCE** Tung T Tran, MD, FACS, Vinay Singhal, MD, Ryan Juza, MD, Eric Paull, MD, Jeremy Lyn-Sue, MD, Randy Balk, MD, Ann Rogers, MD; Penn State Milton S. Hershey Medical Center

**S086 A CALL TO ARMS: OBESE MEN WITH MORE SEVERE COMORBIDITIES OF OBESITY AND UNDER UTILIZATION OF BARIATRIC OPERATIONS. A STUDY OF 1368 PATIENTS.** Gina N Farinholt, MD, Aaron D Carr, MD, Mohamed R Ali, MD, University of California Irvine Medical Center

**S087 LAPAROSCOPIC GREATER CURVATURE PLICATION FOR MORBIDLY OBESE PATIENTS: EARLY EXPERIENCE OF ALEXANDRIA UNIVERSITY** Mohamed Sharaan, MD, Khaleed Karby, MD, Tamer Abdellahi, MS; Faculty of Medicine - Alexandria

**S088 GASTRIC BAND EROSION: DIAGNOSTIC AND TREATMENT ALTERNATIVES** Rodrigo Gonzalez, MD, Edwins B bran, MD, Fernando Montufar, MD; Las Americas Private Hospital

**V031 CONCOMITANT WEIGHT LOSS SURGERY AND DEFINITIVE HERNIA REPAIR** Ainsley B Freshour, MD, Sunil Sharma, MD; University of Florida - Jacksonville

**Concurrent Session SS14 Outcomes**

**Moderators:** Greg Stiegmann, MD & Seigo Kitano, MD

**S089 CAN LAPAROSCOPY FOR COLON RESECTION REDUCE THE NEED FOR DISCHARGE TO SKILLED CARE FACILITY?** Abhijit S Shaligram, MD, Lynette Smith, MS, Pradeep Pallati, MD, Anton Simorov, MD, Jane Meza, PhD, Dmitry Oleynikov, MD, FACS; Nebraska Medical Center, University of Nebraska, Omaha
SS15 Plenary Session II

Moderators: W. Scott Melvin, MD & Desmond Birkett, MD

S098 IMPACT OF OPERATIVE DURATION ON POSTOPERATIVE PULMONARY COMPLICATIONS IN LAPAROSCOPIC VS OPEN COLECTOMY Rachel M Owen, MD, Sebastian D Perez, MSPH, S. Scott Davis, MD, Edward Lin, DO, Ankit D Patel, MD, Nathaniel Lyle, MD, John F Sweeney, MD; Emory University Department of Surgery, Division of General and Gastrointestinal Surgery

S099 LAPAROSCOPIC COMMON BILE DUCT EXPLORATION VERSUS INTRAOPERATIVE SPHINCTEROTOMY FOR MANAGEMENT OF COMMON BILE DUCT STONES: A PROSPECTIVE RANDOMIZED TRIAL Ahmed A Elgeidie, Mohamed M Elshobary, Yussef E Naeem, Mohamed M Elhemaly, Gamal K Elebeidy; gastroenterology surgical center, mansoura university

S110 GLUCOSE AND INSULIN RESPONSE TO GTP: A PROSPECTIVE COMPARISON BETWEEN RouX-EN-Y GASTRIC BYPASS, VERTICAL SLEEVE GASTRECTOMY AND DUODENAL SWITCH AT 1 YEAR Mitchell S Roslin, MD, FACS, Yurii Dudyi, MD, Joanne Weiskopf, PA, Paresh C Shah, MD, FACS; Lenox Hill Hospital, North Shore-LIJ Health System

S101 LAPAROSCOPIC INTRA-PERITONEAL MESH REPAIR COMBINED WITH CLEAN CONTAMINATED SURGERIES-FEASIBILITY AND SAFETY. C Palanivelu, MS, FACS, P Praveen Raj, MS, P Senthilnathan, MS, R Parthasarathi, MS, M K Ganech; GIM Hospital & Research Centre

S102 BILATERAL ULTRASONIC SURGERY AFTER FAILED ADJUSTABLE GASTRIC BANDING: INSTITUTIONAL EXPERIENCE WITH 90 CONSECUTIVE CASES Keng-Hao Liu, MD, Michele Diana, MD, Michel Vix, MD, Hurring-Sheng Wu, MD, Jacques Marescaux, MD, FACS, HonFRCS, HonFJFSES; 1- Chang Gung Memorial Hosp at Linkou, Chang Gung University, Taoyuan, Taiwan 2- IRCAD-IHU, Department of General, Digestive and Endocrine Surgery, University Hospital of Strasbourg, France 3- IRCAD-AITs, Show Chwan Health Care System, Changhua, Taiwan

V032 ENDOSCOPIC REVERSAL AND BYPASS OF STRICTURED VERTICAL BANDED GASTROPLASTY Nathan E Conway, MS, Ashwin A Kurian, MD, Christy M Dunst, MD, Lee I Swanstrom, MD, Kevin M Reavis, MD; The Oregon Clinic and Providence Cancer Center, Portland, OR

S173 FUNDAMENTALS OF ENDOSCOPIC SURGERY: CREATION AND VALIDATION OF THE HANDS-ON TEST M C Vassiliou, MD, MD, P Kaneva, MSc, B J Dunkin, MD, G M Fried, MD, J D Mellinger, MD, T Trus, MD, K I Hoffman, PhD, C Lyons, MD, J R Korndorffer, MD, M Ujiki, MD, V Velanovich, MD, G Korus, MD, D J Scott, MD, J Martinez, MD, S Tsuda, MD, J Seagull, MD, G Adrales, MD, M I Kochman, MD, A Park, MD, J M Marks, MD, McGrill, Methodist, Southern Illinois, Dartmouth, UCS, Tulane, NorthShore, South Florida, U Penn, UTSW, U Miami, U Nevada, U Maryland, Case Western Reserve University

S103 CONTEMPORARY FLEXIBLE ENDOSCOPIC MANAGEMENT OF ACUTE ESOPHAGEAL PERFORATIONS Ahmed Sharata, MD, Ashwin A Kurian, MD, Christy M Dunst, MD, Kevin M Reavis, MD, Lee I Swanstrom, MD; The Oregon Clinic-GMS Division, Providence Portland Cancer Center

S104 TRANS-VAGINAL ORGAN EXTRACTION: POTENTIAL FOR BROAD CLINICAL APPLICATION Juan S Barajas-Gamboa, MD, Alissa M Coker, MD, Joslin Cheverie, MD, C. Aitor Macias, MD, MPH, Bryjan J Sandler, MD, FACS, Garth R Jacobsen, MD, FACS, Mark A Talaminii, MD, FACS, Santiago Horgan, MD, FACS; UCSD Center for the Future of Surgery

S105 ENSURANCE-BASED ATTEMPTS TO REDUCE ENDOSCOPIC GASTROSTOMY COMPLICATIONS: ENTERPRISE DATABASE WAREHOUSE Benjamin K Poulse, MD, MPH, Joan Kaiser, RN, MS, William C Beck, MD, Pearlie Jackson, PhD, William H Nealon, MD, Kenneth W Sharp, MD, Michael D Holzman, MD, MPH; Vanderbilt University Medical Center

S106 PRELIMINARY DATA ON ANTI-SCARRING AGENTS IN THE PREVENTION OF POST ESOPHAGEAL ENDOSCOPIC SUBMUCOSAL DISSECTION (EESD) Yuhsin V Wu, MD, Eric M Pauli, MD, Steve J Schomisch, PhD, Cassandra N Cipriano, Amitbah Chak, MD, Jeffrey L Fonsky, MD, Jeffrey M Marks, MD; University Hospitals Case Medical Center

SAGES acknowledges our Diamond Level Donors for their support of this session: Covidien, Stryker Endoscopy

**Lee L. Swanstrom, MD**

Lee Swanstrom is not just a master of technology. He is a man with a masters degree in Medieval studies, one of the founding innovators of FLS, a man who has both taught AND studied all over the world, enhanced his education in France and Canada and whose current teaching titles count six institutions, including the NIH.

A past-president of SAGES (2003-2004), Lee served on a variety of committees and as a Board member from 1994 – 2006. He was Program Chairman of the 2002 World Congress in New York. He was one of the innovators who pushed us to adopt a competence testing program which later became FLS (Fundamentals of Laparoscopic Surgery). What began as a vision almost 10 years ago is now one of our most vital realities. He serves as a Director of the SAGES Education and Research Foundation.

Lee has been a CESTE committee member of ACS since 2003, and served as President of The Fellowship Council which he helped to found.

His other editorial responsibilities include: Editor in Chief - Surgical Innovation; Editor: Archives of Surgery, Gastrointestinal Endoscopy, Journal of Gastrointestinal Surgery, Surgical Laparoscopy, Endoscopy and Percutaneous Techniques and Mexican Journal of Laparoendoscopic Surgery.

**SESSION DESCRIPTION**

Keynote lecture to discuss the importance of, history of and current status of innovation in surgery. The speaker will use key illustrations from history as well as his own career to illustrate these points.

**SESSION OBJECTIVES:**

At the conclusion of this session, participants will be able to:

- Describe the critical nature of innovation in the history of surgery
- Discuss the current status of innovation in the current socioeconomic climate
- Be empowered to introduce “new” Practices and Technologies into their own practice

**LEARNING THEME**

NS New technologies/skills acquisition

SAGES acknowledges Karl Storz Endoscopy-America for a generous endowment in support of this lecture.
Management of GIST Tumors
Session Chair: Sricharan Chalikonda, MD; Session Co-Chair: David Urbach, MD

SESSION DESCRIPTION
Gastrointestinal stromal tumors (GIST) are one of the most common mesenchymal tumors of the gastrointestinal tract, comprising 1-3% of all gastrointestinal malignancies. Surgery is the mainstay of therapy for non-metastatic GIST. Minimally invasive surgery has been shown to be effective for removal of these tumors. This session will provide an update of current surgical and medical therapies of gastrointestinal stromal tumors.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
- Diagnose and treat gastrointestinal stromal tumors effectively using medical and surgical therapy
- Describe recent advances on the medical treatment of gastrointestinal stromal tumors
- Demonstrate different surgical approaches to resection of gastrointestinal stromal tumors

SESSION OUTLINE

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Faculty Name</th>
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<tbody>
<tr>
<td>1:00PM</td>
<td>What Every GI Surgeon Needs to Know About GIST</td>
<td>A. James Moser, MD</td>
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<td>1:15PM</td>
<td>Laparoscopic Resection</td>
<td>Todd Heniford, MD</td>
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<td>1:30PM</td>
<td>Robotic Resection</td>
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<td>1:45PM</td>
<td>Intragastric Resection</td>
<td>Kenneth K. W. Lee, MD</td>
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<td>2:00PM</td>
<td>Update on Medical Management of GIST: Targeted Therapy, Neoadjuvant Therapy, and Recurrent/ Metastatic Therapy</td>
<td>Julian Kim, MD</td>
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<td>2:15PM</td>
<td>Panel Discussion</td>
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LEARNING THEME

FOD Foregut
NS New technologies/skills acquisition

Essentials of Robotic Surgery
Session Chair: Vincent Obias, MD; Session Co-Chair: Matthew Kroh, MD

SESSION DESCRIPTION
This session will demonstrate the current applications of robotic surgery across a broad spectrum of general surgery sub-specialties including foregut, hepatopancreatico-biliary, colorectal, and endocrine surgery. New applications including single-site and other advanced robotic technologies will be discussed. It will also examine potential hurdles and training regimens for general surgeons interested in acquiring robotic surgery skills and discuss advantages and disadvantages of current robotic technologies.

SESSION OBJECTIVES
At the conclusion of this session, participants will be able to:
- Identify general surgery operations that robotic surgery has been successfully applied to
- Develop technical strategies for successful completion of these operations robotically
- Understand potential advantages and disadvantages that robotic technologies bring to laparoscopic surgery, and potential future applications

SESSION OUTLINE

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<tr>
<td>1:00PM</td>
<td>Start Up And Learning Curve: Why Robotic Surgery Is Easier Than You Think</td>
<td>Samir Agarwal, MD</td>
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<td>1:15PM</td>
<td>Robotic Foregut Surgery</td>
<td>Mehran Anvari, MD</td>
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<td>1:30PM</td>
<td>Robotic Pancreatic Surgery</td>
<td>R. Matthew Walsh, MD</td>
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<td>1:45PM</td>
<td>Robotic Colorectal Surgery</td>
<td>Alessio Pigazzi, MD</td>
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<td>2:00PM</td>
<td>Robotic Endocrine Surgery</td>
<td>Eren Berber, MD</td>
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<td>2:15PM</td>
<td>Robotic Single-Site Surgery</td>
<td>Sherry Wren, MD</td>
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<td>2:30PM</td>
<td>I Can Do It Better Laparoscopically, I Don’t Need A Robot</td>
<td>Bipan Chand, MD</td>
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<td>2:45PM</td>
<td>Future Directions And Next Generation Robotics</td>
<td>Dmitry Oleynikov, MD</td>
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<td>3:00PM</td>
<td>Q&amp;A</td>
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LEARNING THEME

NS New technologies/skills acquisition

GUIDELINES

- A Consensus Document on Robotic Surgery
When Communicating with Your Patient: A Simulation- Based Approach for Prevention of Operative Errors

SESSION DESCRIPTION

This session is designed to enhance surgical proficiency through the use of simulation and hands-on experience. Participants will engage in interactive scenarios that mirror real-world operating room situations, promoting safe and effective surgical practices.

SESSION OBJECTIVES

At the conclusion of this session, participants will be able to:
- Identify the key factors contributing to surgical errors and how simulation can mitigate these risks.
- Apply principles of communication to ensure patient safety and satisfaction.
- Demonstrate effective teamwork and decision-making in a simulated surgical environment.

SESSION OUTLINE

1:00PM - 1:15PM: OR Checklist and Team Preparedness - Importance of OR team preparedness and how a checklist can help ensure appropriate personnel and equipment
- Faculty Name: Charlotte Guglielmi, RN

1:15PM - 1:30PM: Patient Safety in the Operating Room - Prevention of OR fires and other Patient Injury
- Faculty Name: L. Michael Brunt, MD

1:30PM - 1:55PM: Surgical Time Out - What are the key aspects, does it prevent adverse events, is it overly complex/redundant?
- Faculty Name: John Paage, MD

1:55PM - 2:20PM: Time Out and SAGES/AORN Patient Safety Checklist - Implementation and streamlining of these strategies will be discussed.
- Faculty Name: Hazel Darisse, RN

2:20PM - 2:30PM: When Communication Breaks Down - Examples of adverse events or near misses due to poor OR communication
- Faculty Name: Donald Moorman, MD

Panel Discussion - How to ensure OR patient safety without encumbering care
- Faculty Name: All presenters

LEARNING THEME

F2 Professional/Economic

GUIDELINES

- Implementation Manual for the World Health Organization Surgical Safety Checklist

SAGES 2013 Scientific Session & Panels

Saturday, April 20, 2013

1:00PM - 2:30PM: Scientific Sessions & Panels

SAGES/AORN Patient Safety Checklist - Time Out and Huddle

Session Chair: Khashayar Vaziri, MD; Session Co-Chair: Charlotte Guglielmi RN

SESSION DESCRIPTION

This session will review various patient safety strategies and highlight the importance of communication to improve operating room safety and clinical outcomes. Implementation and streamlining of these strategies will be discussed.

SESSION OBJECTIVES

At the conclusion of this session, participants will be able to:
- Identify strategies to improve communication in the Operating Room to avoid adverse patient events.
- Review the key aspects and implementation strategies in the Surgical Time Out and review.
- Discuss the impact of Surgical checklist and team preparedness on outcomes.

SESSION OUTLINE

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<td>Surgical Time Out - What are the key aspects, does it prevent adverse events, is</td>
<td>John Paage, MD</td>
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<td>it overly complex/redundant?</td>
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<td>Hazel Darisse, RN</td>
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<td>Panel Discussion - How to ensure OR patient safety without encumbering care</td>
<td>All presenters</td>
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LEARNING THEME

F2 Professional/Economic

GUIDELINES

- Implementation Manual for the World Health Organization Surgical Safety Checklist

1:00PM - 2:30PM: Concurrent Session SS16 Education/Simulation

S107 RATIONALE FOR THE FUNDAMENTAL USE OF SURGICAL ENERGY™ (FUSE) EDUCATIONAL PROGRAM

Liane S Feldman, MD, Pascal Fuchshuber, MD, PhD, Daniel B Jones, MD, Jessica Mischuna, BA, Malcolm G Munro, MD, Steven Schwartzberg, MD, Fuse Task Force; McGill University, The Permanente Medical Group, Harvard Medical School, SAGES, UCLA, Cambridge Health Alliance

S108 THE FEASIBILITY OF REMOTE PROCTORING FOR THE FUNDAMENTALS OF LAPAROSCOPIC SURGERY (FLS) SKILLS TEST

Allan Okrajene, MD, Melina Vassiliou, MD, Andrew Kapoor, MD, MSc, Kristen B Pitzul, MSc, Oscar Henao, MD, Pepa Kaneva, MSc, Timothy Jackson, MD, E. Matthew Ritter, MD; Toronto Western Hospital – University Health Network, Temerty/Chang Telesimulation Centre, Toronto, Ontario; McGill University Health Centre, Montreal, Quebec; Uniformed Services University, Bethesda, Maryland

V035 THE WIMAT COLONOSCOPY SUITCASE: A NOVEL POLYPECTOMY TRAINER

James Angell, Konstantinos Arnaoutakis, Stuart Goddard, Neil Warren, Jared Torkington; Welsh Institute for Minimal Access Therapy

S109 A PROFICIENCY BASED SKILLS TRAINING CURRICULUM FOR THE SAGES STEP (SURGICAL TRAINING FOR ENDOSCOPIC PROFICIENCY) PROGRAM

Vitor T Wilcox, MD, Ted Trus, MD, Jose M Martinez, MD, Brian J Dunkin, Michael Brunt, MD; The Methodist Hospital, Dartmouth-Hitchcock, the University of Miami

S110 SIMULATION-BASED TRAINING IMPROVES OPERATIVE PERFORMANCE OF TOTALY EXTRAPERITONEAL (TEP) LAPAROSCOPIC INGUINAL HERNIA REPAIR - A RANDOMIZED CONTROLLED TRIAL

Yo Kurashima, MD, PhD, Liane S Feldman, MD, Pepa A Kaneva, MSc, Gerald M Fried, MD, Simon Bergman, MD, Sebastian V Demyttenaere, MD, Melina C Vassiliou, MD, MEd; McGill University

S111 SIMULATED COLONOSCOPY OBJECTIVE PERFORMANCE EVALUATION (S.C.O.P.E.): A NON-COMPUTER BASED TOOL FOR ASSESSMENT OF ENDOSCOPIC SKILLS

Tiffany C Cox, MD, Kristen Thimna, MD, Jonathan P Pearl, MD, E. Matthew Ritter, MD; Norman M. Rich Department of Surgery, Uniformed Services University / Walter Reed National Military Medical Center, Bethesda Maryland. Department of Surgery, University of Maryland, Baltimore MD
SAGES Mini Medical School Boot Camp & Interactive Experience

Session Chair: James Butch Rosser, MD; Session Co-Chair: Anne Lidor, MD
High School Rep/Top Gun for Kids: Elliott Powers

Building on success of last year’s program, high school students from the Baltimore/D.C. area and SAGES membership will have the opportunity to experience the wonderful world of medicine and minimally invasive surgery. With projected physician and surgeon shortages in the future, this program is timely and hopefully will promote early decisions to join our noble profession. The day is power packed with classroom lectures, tours of the Learning Center and Exhibit Hall and the Top Gun Interactive Experience. Both cognitive and skill competitions with awards and prizes will be offered. So do not delay in contacting SAGES for more information because space is limited.

The SAGES Mini Med School is designed to expose high school students to the field of surgery through lecture and simulation. Students will begin to appreciate that being in the OR is rewarding, important work, and fun. The Interactive Experience is a power packed hour that will allow the students to show that they have the “right stuff” to join the ranks of laparoscopic surgeons one day. From video games that help decrease errors, to robotic helicopters to FLS and Top Gun drills, this will be a grand finale to the SAGES Mini Med School experience.

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<th>Time</th>
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<tr>
<td>8:00AM</td>
<td>Registration</td>
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<tr>
<td>8:30AM</td>
<td>Welcome</td>
<td>James Butch Rosser, MD</td>
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<tr>
<td>8:40AM</td>
<td>Putting Patients to Sleep for an Operation</td>
<td>Richard Elliott, MD</td>
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<tr>
<td>8:50AM</td>
<td>Delivering Babies</td>
<td>Lisa Jane Jacobsen, MD MPH</td>
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<tr>
<td>9:00AM</td>
<td>Anatomy of the Abdomen and Chest</td>
<td>Terrence Fullum, MD</td>
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<tr>
<td>9:10AM</td>
<td>Importance of Education</td>
<td>James Butch Rosser, MD</td>
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<tr>
<td>9:20AM</td>
<td>Robotics in MIS Surgery</td>
<td>Jay Redan, MD</td>
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<tr>
<td>9:30AM</td>
<td>Break</td>
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<td>9:40AM</td>
<td>Exhibit Time- escorted tours of the Exhibit Hall and Learning Center</td>
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<td>11:30AM</td>
<td>Lunch</td>
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<td>12:00PM</td>
<td>The Interactive Experience – classroom</td>
<td>James Butch Rosser, MD</td>
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<tr>
<td>1:00PM</td>
<td>Evaluation, Prizes and Closing</td>
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Program limited to 100 students. Letter of recommendation from a high school teacher is required.

Faculty (groups of ten students):

1. Jamie Adair, MD
2. Limaris Barrios, MD
3. Genevieve Chartrand
4. Abe Frech, MD
5. Elizabeth Honigsberg, MD
6. Lisa Jane Jacobsen, MD MPH
7. Yusef Kudsi, MD
8. Katherine Lamond, MD
9. Thomas McIntyre, MD
10. Eric Pauli, MD
11. Kinga Powers, MD
12. Jerome Taylor, MD
13. Dana Telem, MD
14. Shawn Tsuda, MD
15. Xin Zhong, MD
16. Kashif Zuberi, MD

**This event is not accredited for CME by SAGES.**
Surgical Spring Week

SAGES 2014

Scientific Session & Postgraduate Courses

April 2 - 5, 2014  Salt Lake City, UT

www.sages.org  sages2014.org

@SAGES_Updates  www.facebook.com/SAGESSurgery

Society of American Gastrointestinal and Endoscopic Surgeons
The Learning Center is a set of educational classrooms where attendees can gain knowledge and practice skills relevant to minimally invasive surgery. Station coordinators instruct individuals and small groups on topics that range from basic instrumentation to advanced laparoscopic skills. Participants may visit one or more stations that address their educational objectives and spend whatever time is necessary to meet their learning objectives.

1. Natural Orifice Transluminal Endoscopic Surgery (NOTES™)
   
   **Coordinator:** Kai Matthes, MD, PhD
   
   Natural Orifice Transluminal Endoscopic Surgery (NOTES™) is an emerging research area of minimally-invasive surgery. The development of new surgical procedures and devices can be simulated effectively in a training model. For the NOTES™ Station of the SAGES learning center, a novel ex-vivo simulator is used to provide a realistic training experience using commercially available laparoscopic and flexible endoscopic devices. The ex-vivo model consists of a complete porcine peritoneal cavity, which is harvested from the meat production industry, thoroughly cleaned, embalmed and modified to closely resemble human anatomy. Real tissue provides a realistic tactile feedback, which is essential to assess and train new techniques such as NOTES™. Laparoscopic surgeons without flexible endoscopic experience can learn how to operate a flexible endoscope and how to establish transgastric, transvaginal or transcolonic access in order to perform a peritoneal exploration. For the more advanced ‘digestivists’ with flexible endoscopic experience, organ resection (appendectomy, cholecystectomy, distal pancreatectomy, nephrectomy, liver lobe resection, hysterectomy, oophorectomy) or gastrointestinal anastomosis techniques (gastrojejunostomy, partial gastrectomy, colectomy) will be simulated.

2. Top Gun & Top Gun for Kids
   
   **Coordinators:** James “Butch” Rosser, MD and Elliott Powers
   
   The Top Gun Laparoscopic Skill Shootout Station will allow participants to establish and enhance basic laparoscopic skills and suturing ability. All participants can gain skill advancement no matter their baseline. The station will feature the validated “Rosser TOP GUN” skill development stations developed by Dr. Rosser and made famous at Yale. To date, over 6000 surgeons have participated around the world. Instructors will show tactics and techniques that will transfer readily into the clinical environment. In addition, participants will be completing for slots in the Top Gun Shoot Out that will crown one SAGES 2013 TOP GUN.

3. Fundamentals of Laparoscopic Surgery (FLS) 2.0
   
   **Coordinators:** Melina Vassiliou, MD and Pepa Kaneva
   
   This station will introduce participants to the Fundamentals of Laparoscopic Surgery (FLS) didactic and technical skills modules. FLS was designed to teach the physiology, fundamental knowledge, and technical skills required to perform basic laparoscopic surgery, and is a joint ACS – SAGES program. Participants will use the interactive web-based format and the lap trainer boxes to become familiar with the program while working on their laparoscopic knowledge and skills. FLS 2.0 is the newly revised edition of the FLS didactic online study guide. Over 90% of the overall content has been updated including hundreds of new photos, illustrations, links and videos. Meticulously written and reviewed by SAGES members, FLS 2.0 contains fresh material.

4. VR Simulation for Laparoscopic Surgery
   
   **Coordinator:** Survanu De, PhD
   
   The virtual simulator (VBlasv) will allow participants to perform five laparoscopic drills (Peg Transfer, Pattern Cut, Ligation Loop, and Intra- and Extra-Corporeal Suturing) in a virtual environment.

5. Flexible Endoscopic Surgery
   
   **Coordinator:** Thadeus Trus, MD
   
   Come get hands-on experience in flexible endoscopy. This station will showcase newly developed flexible endoscopy training models. These models allow training in scope navigation, tissue targeting, retroflexion and loop reduction. The models are simple to make and can easily be adopted in a residency training curriculum. The station will also feature endoscopy training on a virtual reality simulator. The simulator tasks include upper and lower endoscopy, biopsy, polypectomy, injection and coagulation.
Finally, video based education material is available to review the new SAGES flexible endoscopy training curriculum. This is your chance to practice your endoscopic skills with the help of expert proctors.

**Objectives:**
At the conclusion of this activity, the participant will be able to:
- Evaluate various manual skills training modules
- Assess his/her flexible endoscopy skills
- Develop basic endoscopic skills on virtual reality and inanimate simulation platforms
- Evaluate the SAGES flexible endoscopy training curriculum

**6. Fundamental Use of Surgical Energy (FUSE)**

Coordinators: William Richardson, MD, Carl Voyles, MD and Malcolm Munro, MD

SAGES is developing an assessment examination to certify fundamental knowledge of the safe use of surgical energy-based devices in the operating room and other endoscopic procedural areas. This station will allow participants to review the basic science and technology behind energy sources in the OR, including their indications, correct use, trouble-shooting, and potential hazards.

**Objectives:**
At the conclusion of this activity, the participant should be able to:
- Describe the basic technology of energy sources in the OR
- Demonstrate the correct use and indications of energy sources in clinical practice
- Assess the potential complications, hazards, and errors in the use of surgical energy sources

**7. Laparoscopic Common Bile Duct Exploration**

Coordinator: Eric Hungess, MD

Laparoscopic common bile duct exploration is a procedure which requires the development of a certain skill set for proficiency. Once obtained this skill set can increase the surgeon’s flexibility in the management of potential common bile duct stones. It is perhaps the most time efficient and cost effective way for a hospital system to deal with this fairly common complication of cholelithiasis. At this station, participants will learn the available techniques used for laparoscopic bile duct exploration, and be able to familiarize themselves using a newly developed inanimate model.

**Objectives:**
At the conclusion of this activity, the participant will be able to:
- Practice the techniques available for laparoscopic bile duct exploration
- Understand and familiarize themselves with the newly developed inanimate model

**8. Single Incision Laparoscopic Surgery: Instruments & Techniques**

Coordinators: Brian Jacob, MD, Greg Dakin, MD and Edward Chin, MD

Single incision or single port access is emerging as an optional technique for entry into the abdominal cavity to perform a variety of different laparoscopic procedures. To date, there is dominantly-preferred entry method, but instead a variety of options exist that include using multiple trocars through a single skin incision or using one of many specially designed single port access devices. At this station, you will become familiar with both options. A variety of low-profile trocars that are routinely used in Single Incision Laparoscopic Surgery will be available for use in an inanimate model. Additionally, you will be able to practice inserting and setting up a variety of single port access devices that are currently available for clinical use. By the end of your visit, you will be more familiarized with and more able to compare and contrast the different entry methods available to perform Single Incision Laparoscopic Surgery operations. In addition, this station will also provide an opportunity to suture using single incision techniques in a trainer box and then to compare your skills to traditional laparoscopic suturing. Both straight instruments and articulating instruments will be compared. Participants will have the opportunity to use a variety of Single Incision Laparoscopic Surgery instruments.

**Objectives:**
At the conclusion of this activity, the participant will be able to:
- Compare and contrast different entry methods available to perform SILS operations
- Demonstrate how to insert and set up a variety of single port access devices

**9. Weight Loss Surgery**

Coordinator: Daniel Rosen, MD

The learning curve for gaining proficiency in weight-loss procedures, specifically the sleeve gastrectomy at this station, may be shortened with proper instruction and training. The laparoscopic sleeve (vertical) gastrectomy is growing in popularity, yet the techniques employed vary widely on trocar positioning, stapling techniques, the use of buttress materials, and bougie sizes. At this station, a participant will be able to review a traditional sleeve gastrectomy procedure with an expert, and then get to perform a simulated sleeve gastrectomy in a training box. Newer procedures such as laparoscopic greater curvature plication will also be presented.

**Objectives:**
At the conclusion of this activity, the participant will be able to:
- To review laparoscopic sleeve gastrectomy anatomy and technique.
- To participate in the basic steps of the laparoscopic sleeve gastrectomy
- To explain the basic anatomy and techniques of the laparoscopic greater curvature plication

**10. Suturing & VR Suturing Simulation**

Coordinators: Zoltan Szabo, PhD and Jay Kuhn, MD

Participants receive intense hands-on suturing including intracorporeal techniques with instantaneous feedback. Laparoscopic tissue handling and complex suturing maneuvers will also be demonstrated. Virtual reality suturing simulators will be used to allow “virtual” suturing practice – no suture required, just a fancy videogame with needle driver handles instead of joysticks. Trainees will be able to compare their scores with established expert levels for both types of simulators.

**Objectives:**
At the conclusion of this activity, the participant will be able to:
- To describe the key steps for intracorporeal suturing and knot-tying.
- To practice intracorporeal suturing and knot-tying in inanimate and virtual reality environments.
2013 Learning Center

To demonstrate proficiency compared to “experts”.

11. Adding Haptics to Robotic Surgery
Coordinator: Katherine J. Kuchenbecker, PhD

Robotic minimally invasive surgery typically lacks the haptic (kinesthetic and tactile) cues that surgeons are accustomed to receiving in open and laparoscopic surgery. We have introduced a practical method for adding tactile feedback of instrument vibrations to robotic surgery systems, creating sensations similar to what one feels when using a laparoscopic tool. This station will enable you to experience this new form of haptic feedback and develop an opinion on its potential usefulness in robotic surgery. Participants will be able to (1) use an augmented Intuitive Surgical da Vinci robot to perform box-trainer tasks with haptic feedback, (2) test their technical skills against the instrument vibration metrics of highly experienced robotic surgeons, and/or (3) feel the instrument vibrations that were recorded during robotic sleeve gastrectomy cases on human patients.

Objective:
At the conclusion of this activity, the participant should be able to:
• Describe a new method for adding haptic feedback to robotic surgery
• Demonstrate surgical actions that the surgeon can feel using this technology
• Explain the inverse relationship between instrument contact vibrations and surgical skill

12. Team Simulations
Coordinators: Kinga Powers, MD and Xim Zhang, MD

Team training through simulation enables safe and efficient performance in the operating theater. Simulation is evolving as an essential part of residency training and continuing surgical education. As with aviation, team training in surgery has been used for crisis management. However, performance measures may exist within technical, cognitive, and behavioral domains that affect cost and compliance as well as safety. This station will feature a mock endosuite that will allow surgeons to plan, execute, debrief, and improve upon best practices during surgery, with a focus on cost-containment, team/patient safety, and quality of care.

Objectives:
At the conclusion of this activity, the participant will be able to:
• Use team-based concepts in optimizing time, compliance, performance, and quality during a common surgical procedure
• Use technology and techniques in team-based training, including video-capture and debriefing
• Generate templates for effective team training for residency programs and continuing education

SAGES acknowledges an educational grant in support of this venue from Gore & Associates.

SAGES acknowledges contributions in-kind in support of this venue from Allergan, Applied Medical, Boston Scientific, ConMed, Cook Surgical, Covidien, Encision, Endosim, Ethicon Endo-Surgery, Gore & Associates, Intuitive Surgical, Karl Storz Endoscopy, Microline Surgical, Olympus America, Ovesco, Simbionix, Simulab, Stryker Endoscopy.

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# SAGES Social Programs

## Welcome Reception – A Slew of Equipment Debuts in the Exhibit Hall!

**Date:** Wednesday, April 17  
**Time:** 5:30 - 7:30 PM  
**Place:** Exhibit Hall  
**Fee:** No Fee for Registrants & registered guests  
**Dress:** Business casual

**Special promotions, presentations and entertainment. Great food!**

*Note: Children under the age of 14 will not be permitted in the Exhibit Hall due to safety considerations.*

## SAGES Meet the Leadership Reception for New SAGES Members, Residents and Fellows

**Date:** Friday Evening, April 19  
**Time:** 6:30 - 7:30 PM  
**Place:** Tatu Asian Restaurant @ Power Plant Live!  
**Dress:** Casual

SAGES is a family that values its new members AND new surgeons. Residents, fellows and new members: join us to chat, drink & snack with SAGES leaders many of whom are world acclaimed innovators in MIS surgery. The consummate networking opportunity.

## SAGES Gala Evening – Dinner and Sing-Off @ Power Plant Live!

**Date:** Friday Evening, April 19  
**Place:** 34 Market Place, Baltimore, MD 21202  
**Time:** 7:30 - 11:00 PM  
**Dress:** Fun-Casual, wear dancing shoes  
**Fee:** Included in Registration for SAGES Super Pass (Option A), & registered guests.  
**Tickets:** $125.00 (for additional guests and SAGES Registration Options B & C)

Join us at Baltimore’s premiere entertainment destination for a one-of-a-kind evening that you won’t soon forget. Premium open bar, fabulous buffet and the best band in Baltimore will make for an unforgettable evening.

*The evening will conclude with the 16th International Sing-Off.*

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**Tours**

This year SAGES will not host our own spouse tours. Once you have made hotel reservations, please contact either your hotel concierge or guest information staff person to get information about local tours. There will be local sites and information fliers and booklets available at the SAGES registration desk on site.

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**Please purchase your tickets by Thursday, April 18th**

*Shuttle will start operating from the Hilton, Hyatt and Renaissance at 6pm.*

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**Community Service Initiatives**

SAGES has five projects available onsite to support the community. See page 6 for details and how to sign-up.
Why Join SAGES?

Surgeons join SAGES because ...

- SAGES is unconventional in the best sense of the word. It is a collegial group. New members are welcomed like members of the “family.”
- SAGES members “networked” before that word had been invented.
- If you participate, you are valuable. If you work for the Society, you are invited into its leadership circle.
- SAGES is inclusive while preserving quality. It is statistically more difficult to have a paper accepted for oral presentation at a SAGES meeting than almost any other group.
- New ideas are welcomed.
- We have a service-oriented staff. When you call with a question, someone answers it or finds the answer or helps you find out where to find the answer.
- Added benefit: get discounts for meeting registration or reserve spaces in our basic and advanced resident courses.

SAGES primary mission is to:

- Provide superb cutting edge educational programs in a variety of formats.
- Support and encourage achievement in endoscopic surgery for the surgeon.
- Develop and disseminate guidelines in standards of practice and training that reflect current scientific data and surgical thinking.
- Protect the interests of our patients in assuring them access to the BEST operation.
- Keep surgeons aware of innovative technology that will improve the practice of surgery.
- Support innovative endoscopic research.

What We’ve Done in a Short Time:

SAGES (The Society of American Gastrointestinal and Endoscopic Surgeons) was founded in 1981 to foster, promote, support, and encourage academic, clinical, and research achievement in gastrointestinal endoscopic surgery. The Society has grown from fewer than 50 original members to more than 6,000 from every state and many countries.

SAGES...

- has a representative on the American College of Surgeons Board of Governors.
- is a Nominating Member of the American Board of Surgery.
- holds a seat in the House of Delegates of the A.M.A.
- operates FLS – you must pass FLS before being board certified.
- has its own Wiki-Pages and SAGES University.
- has a representative on the Fellowship Council.
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<th>Institution/Location</th>
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<td>Steven Bradley Goldin, MD, PhD – UMSA Tampa General Hsp, Tampa, FL</td>
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<td>James Thiele, MD</td>
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Methods: Between January 1, 2000 and December 31, 2010, 102,740 transabdominal US were performed in our tertiary teaching hospital and there were 6,612 GB polyps reported. During the same time period, 13,703 cholecystectomies were performed. There were 229 patients who underwent cholecystectomy who also had a GB polyp identified on a preoperative US. Histopathologic correlation study was performed to assess the diagnostic accuracy for transabdominal US.

Results: GB polyps were found in 6.4% of transabdominal US reports. Polyps were found in 1.2% of cholecystectomy specimens. US detected only 50% of the polyps identified on histopathology. The table lists the histopathology for the 229 patients undergoing cholecystectomy with a preoperative diagnosis of a GB polyp.

<table>
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<tr>
<th>Histopathology</th>
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<tr>
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<td>3.4</td>
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<tr>
<td>Cholecystitis, Chronic</td>
<td>175</td>
<td>76.4</td>
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<tr>
<td>Cholelithiasis</td>
<td>115</td>
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<td>3.1</td>
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<td>Adenomyoma</td>
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<td>3.1</td>
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<tr>
<td>Cholesterol Polyp</td>
<td>17</td>
<td>7.4</td>
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<tr>
<td>Hyperplastic Polyp</td>
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<td>1.7</td>
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<tr>
<td>Adenoma</td>
<td>2</td>
<td>0.9</td>
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<tr>
<td>All Polyps</td>
<td>23</td>
<td>10.5</td>
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<tr>
<td>Malignancy</td>
<td>3</td>
<td>1.3</td>
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Of the polyps found on US, 89.5% were not found on histopathology. Of the 23 polypoid lesions correctly detected by ultrasound there were 17 cholesterol polyps, 4 hyperplastic polyps, and 2 adenomas. The sensitivity and specificity of transabdominal US for diagnosing GB polyps were 50.0 and 98.3%, respectively. The positive and negative predictive values were 10.5 and 99.8%.

Conclusion: Despite improvement in US technology, the accuracy of transabdominal ultrasonography for GB polyps remains poor. This needs to be considered when managing patients with US detected GB polyps. We recommend that the decision to operate on US detected GB polyps be largely based on symptoms and following GB polyps with US should be discouraged.

Soo3
LAPAROSCOPIC VS. OPEN LIVER RESECTION FOR BENIGN AND MALIGNANT SOLID LIVER TUMORS: A CASE MATCHED STUDY
Mohammad Kazem Fallahzadeh, MD, Gazi B Zibari, MD, FACS, FICS, Alireza Hamidian Jahromi, MD, Quyen Chu, MD, FACS, Runhua Shi, MD, PHD, Hesein Shokouh-Amiri, MD, FACS, FICS; Department of Surgery, Louisiana State University Health Sciences Center-Shreveport

Introduction: Laparoscopic liver resection (LLR) is gaining more popularity among surgical community as an alternative option to open liver resection (OLR) for the treatment of benign and malignant liver lesions. The aim of our study was to compare the surgical and oncological outcomes of LLR vs. OLR in benign and malignant solid liver tumors in a case-matched study.

Methods: In this IRB approved study, charts of 497 patients with liver lesions who had LLRs or OLR in our center were retrospectively reviewed. Among them, 54 consecutive
patients with benign or malignant solid liver tumors who had LLR were matched with similar number of patients with OLR based on the pathology and extent of liver resection. Additionally, the surgical and oncological outcomes such as OR time, amount of blood transfusion requirement, free resection margin, length of stay, complication rate, perioperative mortality and survival were compared between two groups. Perioperative mortality was defined as any death, regardless of cause, occurring within 30 days after surgery in or out of the hospital, and after 30 days during the same hospitalization subsequent to the operation. Independent-sample t-test, chi-square and Fisher’s exact tests and log-rank test were used to compare the data between two groups.

Results: Demographics, pathological characteristics of tumor and extent of liver resection were similar between the two groups. Twenty-nine (54%) patients in each group had malignant lesions. There were no statistically significant differences between the two groups in terms of OR time, amount of blood transfusion requirement, free resection margin or post-op complication rate or survival. However, length of stay was significantly lower in laparoscopic group (5.9 vs. 9.0 days, P<.005). While no perioperative complications were observed in patients with benign tumors, in patients with malignant tumors, 2 died perioperatively in each group.

Conclusion: Our results in accordance with previous studies demonstrate that while the oncological outcomes of LLR and OLR are comparable, LLR patients have shorter length of stay. Possible pros and cons of LLR vs. OLR for the treatment of solid liver tumors should be further compared in randomized controlled trials.

So05

**COMBINED NEAR-INFRARED FLUORESCENCE LAPAROSCOPY OF THE EXTRA-HEPATIC BILE DUCTS AND ARTERIAL ANATOMY: RESULTS OF A FEASIBILITY STUDY**

R.m. Schols, MD, N.d. Bouvy, MD, PhD; A.a.m. Masclee, MD, PhD; R.m. van Dam, MD, C.h.c. Dejong, MD, PhD; L.p.s. Stassen, MD, PhD; Departments of Surgery and Gastroenterology, Maastricht University Medical Center, The Netherlands

**INTRODUCTION:** Laparoscopic cholecystectomy (LC) is one of the most commonly performed laparoscopic procedures. Bile duct injury (BDI) is a rare, but serious complication during this procedure, mostly caused by misidentification of the extra-hepatic bile duct anatomy. Intraoperative cholangiography may be helpful to reduce the risk of BDI; however this is not a common procedure worldwide. Near-infrared fluorescence (NIRF) imaging using indocyanin green (ICG) is a promising alternative for the identification of the biliary anatomy.

**Aim:** To assess the feasibility and potential of intermittent NIRF during LC, using a newly developed laparoscopic fluorescence imaging system, for early biliary tract delineation.

**METHODS AND PROCEDURES:** Patients undergoing elective LC were included and received one intravenous injection of ICG directly after induction of anesthesia and a repeat intravenous injection at establishment of Critical View of Safety (CVS). During dissection of the base of the gallbladder and the cystic duct the extra-hepatic bile ducts were visualized using a dedicated laparoscope, which offers both conventional state-of-the-art imaging and fluorescence imaging. Intraoperative recognition of the biliary structures was registered at set time points, as well as the arterial anatomy confirmation at establishment of CVS.

**RESULTS:** 30 patients were included. ICG was visible in the liver and bile ducts within 20 minutes after intravenous administration and remained so up to approximately 2 hours, using the fluorescence mode of the laparoscope. The common bile duct and cystic duct could be clearly identified at an early stage of the operation and more important, significantly earlier than with the conventional camera mode. Confirmation of the cystic artery was successfully obtained after repeat intravenous ICG injection at establishment of CVS. No prolonged preparation time before start of surgery and only a negligible extension of the operation time (<2 minutes) was observed, due to the use of the NIRF technique.

**CONCLUSION:** Intermittent fluorescence imaging using a newly developed laparoscope, after administration of...
ICG, seems a useful aid in accelerating visualization of the extra-hepatic bile ducts and for confirmation of the arterial anatomy during laparoscopic cholecystectomy. Thereby it most likely increases safety of the procedure.

**S006**

**Laparoscopic hepatic resection for metastatic liver tumor of colorectal cancer: comparative analysis of short and long term results** Shuichi Iwahashi, Mitsuo Shimada, Tohru Utsunomiya, Satoru Inoue, Yuki Mine, Tetsuya Ikemoto, Yusuke Arakawa, Hiroki Mori, Mami Kanamoto, Shinichiro Yamada, Hidenori Miyake; Department of Surgery, Tokushima University

**Introduction:** With progress of surgical technique and devices, laparoscopic hepatectomy (LH) became a realizable option for patients with liver tumors. However, the feasibility of LH for metastatic liver tumor of colorectal cancer should be guaranteed also oncologically. Therefore, we evaluate the short and long term outcome of LH compared with open hepatectomy (OH) for metastatic liver tumor patients of colorectal cancer by matched pair analysis.

**Patients and Methods:** Twenty patients with metastatic liver tumor of colorectal cancer who underwent Lap-Hx were enrolled in this study. Age ranged from 47 to 88 with a median range, and gender: female was 15.5%. Tumors were located in the entire liver, and tumor size ranged from 1.5 cm to 4.5 cm (median 2.0 cm) in the diameter. Operative procedures consisted of left Hx in 2, left medial segmentectomy in 1, left lateral segmentectomy in 4, subsegmentectomy in 2, and partial Hx in 11. The patients were compared with 20 matched patients who underwent open hepatectomy (Open-Hx), in which the following parameters were matched; tumor size, tumor location and operative procedure. Both short- and long-term outcomes in Lap-Hx were compared with those in Open-Hx.

**Results:** No difference was observed between the two groups, in age, gender, tumor size, and operative procedures. Short-term outcome: Operative time (371+/-132 min) in Lap-Hx was similar to that in Open-Hx (370 +/- 146 min.). Blood loss (184 +/- 170 ml) in Lap-Hx was smaller than that in Open-Hx (312 +/- 227 ml) (P<0.05), and hospital stay (15.0 days) in Lap-Hx tended to be shorter than that in Open-Hx (17.5 days) (P=0.08). No difference was observed in incidence and kinds of postoperative complications between the two groups. Long-term outcome: Overall survival rate was 100% at 1-year, 82% at 3-year, 41% at 5-year in LH group and 88% at 1-year, 69% at 3-year and 75% at 5-year in OH group. Disease-free survival rate was 51% at 1-year, 11% at 3-year and 11% at 5-year in LH group and 63% at 1-year, 31% at 3-year and 23% at 5-year in OH group. There was no significant difference in overall and disease-free survival between the two groups.

**Conclusion:** LH is safe and feasible option for selected metastatic liver tumor patients of colorectal cancer. The short and long term outcome of LH is also considered to be acceptable.

**S007**

**Selected transjugular intrahepatic portosystemic shunt versus laparoscopic splenectomy plus endoscopic varices ligation in the treatment of portal hypertension** Zhong Wu, PhD; Jin Zhou, PhD, Bing Peng, PhD; West China Hospital, Sichuan University

**Background:** Liver cirrhosis is associated with higher morbidity and reduced survival with appearance of portal hypertension and resultant decompensation. Transjugular intrahepatic portosystemic shunts (TIPS) are known to be efficacious in reducing portal venous pressure and control of complications secondary to portal hypertension such as variceal bleeding and ascites. Endoscopic variceal ligation (EVL) is very effective in controlling acute variceal hemorrhage with a favorable short-term efficacious. Splenectomy could effectively improve thrombocytopenia caused by hypersplenism and the long-term liver function. The present study was to compare elective TIPS and laparoscopic splenectomy (LS) plus EVL in their efficacy in preventing recurrent bleeding and long-term improvement in liver function in patients with liver cirrhosis and portal hypertension.

**Materials and methods:** Between January 2009 and March 2012, we enrolled 83 patients (55 with TIPS and 28 with LS plus EVL) with portal hypertension and a history of gastro-esophageal variceal rebleeding secondary to liver cirrhosis. The inclusion criteria were patients who were diagnosed as liver cirrhosis and had an episode of gastro-esophageal variceal bleeding (at least 72 hours after diagnostic endoscopy of bleeding). Clinical characteristics, perioperative outcomes and follow-up were recorded.

**Results:** No significant differences were observed between the two treatment groups with respect to patients’ characteristics and preoperative variables. Within 30 days after surgery, one patient in TIPS group died of multiple organ dysfunction syndromes, while no patient in LS group died. Complication occurred in 14 patients in the TIPS group including re-bleeding (n=5), encephalopathy (n=4), ascite (n=2), bleeding from a pseudoaneurysm of the thoracoabdominal aorta (n=2) and Pulmonary infection (n=1, 1.8%) as compared with 5 patients in the LS group including pulmonary effusion (n=1), pancreatic leakage (n=1) and portal vein thrombosis (n=1). During a median follow-up of 13.6 months in TIPS group and 12.3 months in LS group, the actuarial survival was 100% in the LS group versus 85.5% in the TIPS group. Complications of TIPS group included encephalopathy (n=8) and re-bleeding (n=6). None sever complication occurred in LS group. Five patients had mild esophageal variceal detected by endoscopic examination. No special therapy was offered to them. Encephalopathy occurred in eight patients in the TIPS group and none in the LS group. In TIPS group, no significant difference was found between the pre- and post-operative time according to the hematological parameters (hemoglobin and platelet count) while a gradually deterioration was shown in liver function variables. In contrast, patients in LS group had an improvement in both hematological parameters and liver function.

**Conclusion:** LS plus EVL was superior to TIPS in the prevention of gastro-esophageal variceal rebleeding and other severe complications in cirrhotic patients. It improved long-term liver function and was associated with low rate of portosystemic encephalopathy.

Table Complications of both groups during short- and long-term follow up

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<th>LS plus EVL group (%/%)</th>
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<tr>
<td>Encephalopathy</td>
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**S008**

**BASELINE GLYCATED HEMOGLOBIN LEVELS PREDICTENDOBARRIER-INDUCED WEIGHT LOSS IN MORBIDLY OBESE PATIENTS WITH AND WITHOUT TYPE 2 DIABETES** Rodrigo Muñoz, MD, PhD, Angelica Dominguez, Statistician, Cesar Muñoz, MD, Milenko Slako, MD, Dannae Turiel, RN, Cecilia Gómez, RN, Fernando Muñoz, MD, Fernando Pimentel, MD, Alan Sharp, MD, Alfonso Escalona, MD; DEPARTAMENTO DE CIRUGIA DIGESTIVA, ESCUELA DE MEDICINA PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE

**INTRODUCTION:** Endoscopic treatment with the Endobarrier has shown to induce significant weight loss in morbidly obese patients. Twelve months after Endobarrier implantation, patients lose an average of 47% Excess Body Weight (%EBW). As with the weight loss seen with bariatric surgery, this weight loss is somewhat variable. We sought to identify clinical predictors of weight loss in morbidly obese patients treated with the Endobarrier for one year.

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METHODS AND PROCEDURES: We reviewed charts from 61 consecutive patients implanted with the Endobarrier for 12 months. Patient demographics along with baseline comorbidities, anthropometrics and biochemical variables were selected for univariate and multivariate analysis.

RESULTS: Preoperative age and body mass index (BMI) were 35.4±9.7 years and 43±6.5 kg/m², respectively with 44 (72%) women. In this series, 21 patients (34%) had Type 2 Diabetes Mellitus (T2DM). Twelve months after Endobarrier treatment, patients had a mean %EBWL of 46±18%. Univariate analysis identified that fasting glycaemia (r² = 0.303, p<0.013), insulin-resistance determined by HOMA (HOMA-IR) (r² = -0.457, p<0.019), and glycated hemoglobin A1c (HbA1c) (r² = -0.471, p<0.013) were inversely associated with %EBWL at one year of treatment. In this cohort of patients the multivariate analysis indicated that only baseline HbA1c levels were inversely associated with %EBWL after one year of treatment adjusted coefficient -0.758, p<0.016). Importantly, no differences in %EBWL at one year were observed between patients with and without T2DM (%EBWL with T2DM 46.7±20% versus without T2DM 46.5±18.6%, p=0.988).

CONCLUSIONS: The results of this study indicate that higher baseline HbA1c levels are independently associated with diminished body weight loss in morbidly obese patients treated with the Endobarrier independent of the diabetic status of the patient. This finding contrasts with previous reports in which T2DM patients experienced a lower weight loss. These results show that Endobarrier induces a significant weight loss in both T2DM and non-T2DM patients.

Soo
PREDICTIVE FACTORS FOR CHOLECYSTECTOMY IN BARIATRIC PATIENTS UNDERGOING MEDICALLY-SUPERVISED WEIGHT LOSS
Alan Berg, MD, Jean-Claude Gauthier, MD, Fatima Haqar, MPH, PhD, Tinghua Zhang, MSC, Robert Dent, MD, Jean-Denis Yelle, MD, Isabelle Raiche, MD, N’Gai Forte, MD, Joseph Mamazza, MD, Division of General Surgery, the Ottawa Hospital, University of Ottawa, the Ottawa Hospital Research Institute

Introduction: The objective of this study was to determine the prevalence of cholecystectomy in obese patients enrolled in a rapid weight loss program and to identify factors associated with an increased risk for requiring cholecystectomy.

Methods: We included data from 3436 patients enrolled in a medically-supervised weight loss program at the Weight Management Clinic, the Ottawa Hospital between 1992 and 2008. All patients who had a cholecystectomy prior to initiation of the weight loss program were excluded. We prospectively collected detailed historical, clinical, and laboratory data. Objective measurements and responses to standardized questionnaires were collected during clinic visits. A univariate analysis was performed to identify patient factors that were associated with cholecystectomy. A multivariate analysis was then performed to identify independent predictors of this outcome.

Results: Of the 3436 patients enrolled into the Weight Management Clinic at the Ottawa Hospital, 585 (17%) had a cholecystectomy prior to enrolment into the program. A total of 2815 patients were included in the final analysis. The overall prevalence of cholecystectomy in our population was 8%. Multivariate analysis revealed six variables that were independent predictors of cholecystectomy at one year (p-value ≤ 0.05): Incremental BMI increase of 5, rate of weight loss > 1.5 kg/week, serum triglycerides > 1.7 mmol/L, menstruating females, oral contraceptives and hormone-replacement therapy. Two factors, total bilirubin > 17 μmol/L and lipid-lowering drugs, were associated with significant reductions in the incidence of cholecystectomy. Factors that had no influence included gender, prior pregnancy, and serum total cholesterol > 5.2 mmol/L.

Conclusion: Multiple patient factors were found to be associated with an increased risk of requiring cholecystectomy in individuals undergoing rapid medical weight loss. Future studies should determine if these factors could be predictive of who will develop symptomatic cholelithiasis and require cholecystectomy in the bariatric surgery population. This knowledge would be helpful to guide decision-making for surgeons who are considering when to offer concomitant cholecystectomy at the time of bariatric surgery.
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**Methods:** Under IRB approval, a retrospective review of all diabetic patients who underwent LSG was performed. Inclusion criteria included age ≥ 18, BMI > 30, and presence of diabetes with proven biochemistry and/or ongoing medical treatment. Multidisciplinary preoperative assessment involving medical, surgical, psychiatric, and dietary evaluations was completed. Patient demographics, weight, BMI, glycosylated hemoglobin level, fasting blood glucose, insulin requirements, oral hypoglycemics, antihypertensive medications, lipid profiles, and arthritides prevalence were obtained both pre- and post-operatively. Outcome measures included resolution of diabetes, extent of weight loss, percent of excess weight loss (%EWL), percent BMI loss (%BMI loss), complications, mortality, and duration of follow-up.

**Results:** Fifty-five obese, diabetic patients underwent LSG between August 2007 and July 2012. Female to male ratio was 2.24:1. Initial age, weight, and BMI averaged 53 years, 310 lbs, and 50 kg/m², respectively. Mean operative time was 113 mins (74-269). Preoperative duration of disease with respect to DM was 8.24 (0.5-39) years. Average preoperative HbA1c level was 10.4 mmol/mol (5.6-11.8), which dropped to 6.33 (5.1-9.2), 6 (5-6.8), and 6.1 (4.9-9.3) mmol at 1, 6, and 12 months respectively. The mean fasting blood glucose level was 167 mg/dL (105-287), and at 1, 6, and 12 months this level was 106 mg/dL (75-157), 99 mg/dL (68-159), and 102 mg/dL (73-170) accordingly. One patient (1.8%) was on insulin alone, 53 patients (96%) were on oral anti-hyperglycemics, and 14 patients (25.5%) were on a combination of both. At 1 month, 28 patients (61%) were off all diabetic medications, and this increased to 37 (67%) and 39 (71%) patients at 6 and 12 months. Mean weight at 1, 6, and 12 months was 265, 238, and 227 lbs, respectively. The %EWL was 27%, 42%, 48%, and %BMI loss was 14.3%, 23.1%, 26.3% at these intervals. Hypertension was present in 41 patients (75%) who required an average of 1.5 (1-4) oral medications for treatment. Hypertension prevalence decreased to 24 patients (25%) at 6 months. Hypertriglyceridemia was noted preoperatively with a mean of 193 mg/dL (71-467); average 6-month postoperative triglyceride level was 127 mg/dL (68-336). Preoperative LDL, HDL, and total cholesterol levels were 96 mg/dL (42-187), 43 mg/dL (19-76), and 180 mg/dL (99-308); postoperative measurements were 94 mg/dL (45-164), 48 mg/dL (9-76), and 165 mg/dL (107-274) respectively. Post operative complications and mortality were 0%.

**Conclusions:** LSG as a primary surgical treatment in obese diabetic patients maintains metabolically desirable outcomes over time. Weight loss, glucose homeostasis, and resolution of obesity-related co-morbidities in combination with zero surgical complications or mortalities supports LSG as a stand-alone procedure for metabolic syndrome.

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**S013 REVISIONAL BARIATRIC SURGERY: PERIOPERATIVE MORBIDITY IS DETERMINED BY THE TYPE OF PROCEDURE**

Kishore Malireddy, MD, Ryan Phillips, BS, Evon Zoog, BS, Timothy Kuwada, MD, Dimitrios Stefanidis, MD, PhD; Carolinas Healthcare System, CMC-Mercy

**Introduction:** Revisional bariatric procedures are on the rise and are expected to continue increasing given the high number of primary procedures being performed in the US. The higher complexity of these procedures has been reported to lead to increased risk of complications compared with primary bariatric procedures. The objective of our study was to review the indications and perioperative risk profile of revisional bariatric surgery compared with primary bariatric procedures.

**Methods:** A prospectively maintained database of all patients undergoing bariatric surgery by three fellowship trained bariatric surgeons between June 2005 and June 2012 at a center of excellence was reviewed. Patients who underwent revisional bariatric procedures were identified and divided into four categories: band to bypass, band to sleeve gastrectomy, bypass revision, and fundoplication to bypass. Patient age, baseline BMI, type of initial and revisional operation, number of prior gastric surgeries at time of operation, indications for revision, postoperative morbidity and mortality, length of stay, 30-day readmissions, reoperations, and leaks were recorded. These outcomes were compared between revisional and primary procedures using Mann Whitney or Chi-square tests. Under morbidity we included readmissions or postoperative ER visits, wound infections, pulmonary embolism, urinary tract infections and other less frequent complications.

**Results:** Out of 1519 patients undergoing bariatric surgery 74 (4.9%) had revisional procedures during the study period. Indications for revisions included inadequate weight loss in...
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47 (63.5%) patients, failed fundoplications with recurrent GERD in 25 (33.8%) patients, recurrent anastomotic ulcers in one patient, and excess weight loss in one patient. Revisional procedures were associated with higher rates of readmissions and overall morbidity but no differences in leak rates and mortality compared with primary procedures. Band revisions had similar LOS and did not require reoperations compared with the respective primary procedures but patients after bypass revision or fundoplication to bypass revision had longer LOS, higher leak rate, and ≥20% required repeat surgery (see table).

Conclusions: In experienced hands, revisional bariatric procedures can be accomplished with excellent perioperative outcomes that are similar to primary procedures. As the complexity of the revisional procedure and number of prior surgeries increases, however, so does the perioperative morbidity; fundoplication revisions to gastric bypass outcomes that are similar to primary procedures. As the complexity of the revisional procedure and number of prior surgeries increases, however, so does the perioperative morbidity; fundoplication revisions to gastric bypass represent the highest risk group.

Outcome comparison between primary and revisional bariatric procedures

<table>
<thead>
<tr>
<th>Procedure</th>
<th># patients</th>
<th>Age BMI</th>
<th># prior gastric operations</th>
<th>LOS</th>
<th>Morbidity</th>
<th>Mortality</th>
<th>Leaks</th>
<th>30-day readmissions</th>
<th>Reoperations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary BV Gastric Bypass</td>
<td>118</td>
<td>40.3</td>
<td>46.7</td>
<td>2.1</td>
<td>10%</td>
<td>0.1%</td>
<td>0.5%</td>
<td>8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Primary Sleeve Gastrectomy</td>
<td>273</td>
<td>46.1</td>
<td>43.9</td>
<td>2.1</td>
<td>8%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Band to Bypass</td>
<td>22</td>
<td>47.7</td>
<td>40.0</td>
<td>2</td>
<td>24%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Band to Sleeve</td>
<td>14</td>
<td>48</td>
<td>39.3</td>
<td>2</td>
<td>28%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Bypass Revision</td>
<td>13</td>
<td>52%</td>
<td>45.5</td>
<td>3</td>
<td>41%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

= p<0.05 compared with primary bypass or sleeve gastrectomy
f= p<0.05 compared with band revisions
* = p<0.05 based on a random sample of 100 patients

RESULTS: Of the 42 (4.6%) patients undergoing revisional bariatric surgery for failed gastric banding, 22 (52%) underwent conversion to SG and 20 (48%) underwent conversion to RYGB. All patients underwent laparoscopic surgery. Weight at the time of the revisional surgery was 236+/-26 and 257+/-45 lb in patients undergoing revision to SG and RYGB, respectively (p=NS). There was no difference in age (55+/-11 vs 43+/-14 years), gender ratio (73% vs 60% male patients), estimated blood loss (163 [50-600] vs 180 [50-800] ml), rate of conversion to open surgery (9% vs 5%), intraoperative complications (6% vs 10%), postoperative complications (14% vs 20%) between patients undergoing conversion to SG and RYGB, respectively. However, there was a significant difference in operative time (155+/-26 vs 208+/-45 minutes), length of hospital stay (5+/-1 vs 5+/-2 days), and percentage of failure due to inadequate weight loss or weight regain. Revisional bariatric surgery is an alternative to induce further weight loss in these patients. However, it is still unclear which is the appropriate operation following failed gastric banding, either another restrictive procedure like the sleeve gastrectomy (SG) or a combined restrictive and malabsorptive procedure like the Roux-en-Y gastric bypass (RYGB). The aim of this study is to review outcomes between converting a failed gastric banding to SG versus RYGB.

CONCLUSIONS: Revisional bariatric surgery through laparoscopic approach in patients with inadequate weight loss following gastric banding is safe and effective. Both procedures result in significant weight loss at long-term follow-up with low complication rates. Results of conversion to both sleeve gastrectomy and Roux-en-Y gastric bypass are comparable. However, the more demanding technical aspects of converting a gastric band to RYGB results in increased operative times, length of hospital stay and length to return to normal activities (7+/-2 vs 11+/-4 days) between patients undergoing conversion to SG and RYGB, respectively. Follow-up was similar between patients in the SG (58+/-28 months) and RYGB (51+/-21 months) groups. Weight loss was 66+/-24 and 80+/-33 lb in patients undergoing conversion to SG and RYGB, respectively (p=NS).

So15

ECONOMIC EVALUATION OF HOSPITAL COSTS ASSOCIATED WITH LAPAROSCOPIC AND OPEN INGUINAL HERNIORRHAPHY

Fernando Spencer Netto, MD, PhD, FRCS, Bruna Camilotti, MD, Kristen Fitzul, Todd Penner, MD, FRCS, Timothy Jackson, MD, FRCS, Payez Quereshy, MD, FRCS, Allan Okraikin, MD, FRCS, Toronto Western Hospital, University Healthy Network, University of Toronto

INTRODUCTION: Inguinal hernia repair is one of the most common surgical procedures performed worldwide. Several studies have validated the clinical utility of laparoscopic inguinal herniorrhaphy and have demonstrated comparable long-term recurrence rates. In addition, laparoscopic surgery may enable enhanced recovery in the perioperative period. Given increasing fiscal constraints, procedural cost-effectiveness has become a critical metric in evaluating surgical procedures. The purpose of this study was to compare the total hospital costs associated with elective laparoscopic and open inguinal hernia repairs.

METHODS AND PROCEDURES: Using a prospectively maintained database, 211 patients who underwent elective unilateral inguinal hernia repair (117 open and 94 laparoscopic) and 33 patients following elective bilateral inguinal hernia repair (9 open and 24 laparoscopic) from April 2009 to March 2011 were identified. A retrospective review of electronic patient records was performed along with a standardized case-costing analysis using data from the Ontario Case Costing Initiative. Monetary values are shown in Canadian dollars and were converted to 2012 value using consumer price index inflationary adjustments. Chi-square and the Mann-Whitney U tests were used for categorical and continuous variables respectively.

RESULTS: Laparoscopic repair was associated with a longer median operative time and required the use of general anesthesia in all cases. Operating room (OR) and total hospital costs (from pre-admission to discharge) for open unilateral inguinal hernia repair were significantly lower than the laparoscopic approach (median total cost for surgery = $8386.64, TAPP = $8587.65 and TEP = $8603.23, p-value <0.05). However, OR and total hospital cost for repair of elective
bilateral inguinal hernias were similar when comparing the open and laparoscopic approach (median total cost for open surgery = $4797.38; TAPP= $4891.56; TEP = $4769.33). When comparing unilateral or bilateral hernia repair within the laparoscopic cohort, there was no statistical difference in the cost (either OR or total episode of care) between the TAPP versus the TEP technique.

CONCLUSIONS: In the setting of a Canadian university hospital, when considering the repair of an elective unilateral inguinal hernia, the OR and total hospital costs of open surgery are significantly lower than the laparoscopic techniques. There is no statistical difference between OR and total hospital costs when comparing open surgery or laparoscopic techniques for repair of bilateral inguinal hernias. Further studies evaluating the economic utility and opportunity costs are necessary to elucidate the differences between elective open and laparoscopic inguinal herniorrhaphy that may extend beyond monetary evaluation alone.

So16
CURRENT NATIONAL PRACTICE PATTERNS FOR MANAGEMENT OF VENTRAL ABDOMINAL WALL HERNIA: A POPULATION-BASED STUDY

L M Funk, MD, MPH, Kyle A Perry, MD, Vimal K Narula, MD, Dean J Mikami, MD, W Scott Melvin, MD; The Ohio State University

Introduction: The health care burden related to the management of ventral hernias is substantial with more than 3 billion dollars in expenditures annually in the U.S. alone. Previous studies have suggested that the utilization of laparoscopic mesh repair for incisional hernia remains relatively low; however, national case volume estimates for all types of abdominal wall hernias (umbilical, incisional and other ventral) have not been reported since these procedure codes were instituted in 2008. We performed a population-based analysis to estimate the national volume of elective ventral hernia surgery, identify the proportion of laparoscopic versus open approaches, and compare the cost and length of stay for each approach.

Methods and Procedures: We analyzed data from the Nationwide Inpatient Sample to identify adults with a diagnosis of an umbilical, incisional, or ventral hernia who underwent an elective ventral hernia repair in the U.S. in 2009 and 2010. International Classification of Disease codes were used to identify the appropriate procedure codes. Cases that included multiple hernia procedures, other than lysis of adhesions and/or small bowel resections, were excluded. Details of the surgical approach, including laparoscopic versus open technique and whether mesh was used were examined. National estimates of surgical volume were generated, and length of stay and total hospital charges were compared for laparoscopic versus open repairs.

Results: 10,051 elective umbilical, incisional and ventral hernia repairs were included in the analysis. 72.1% (n=89,073) of cases were incisional hernia repairs, while umbilical hernia repairs comprised only 6.5% (n=7,788) of the cohort. A laparoscopic approach was utilized in 26.6% (n=29,870) of cases, including 20.6% of umbilical hernias, 26.5% of incisional hernias, and 29.1% of other ventral hernias. Mesh was placed in 90.5% (n=96,666) of cases, including 92.6% (n=93,841) of umbilical hernia repairs and 90.1% (n=97,937) of incisional hernia repairs. There were no statistically significant differences in the use of laparoscopy or mesh between 2009 and 2010. Length of stay and total hospital charges were significantly lower for laparoscopic versus open umbilical, incisional and other ventral hernia repairs (p-values all <0.001). The average charge was $32,064 per admission for laparoscopic repairs compared to $37,377 for open repairs (p-value<.001). Total hospital charges during this two year period approached 4 billion dollars ($8936 million for laparoscopic repair versus $3 billion for open repair).

Conclusions: The utilization of laparoscopy for elective abdominal wall hernia repair remains low in the U.S. Only one-quarter of patients underwent laparoscopic umbilical, incisional or other ventral hernia repair in both 2009 and 2010 despite the fact that a laparoscopic approach was associated with a shorter hospitalization and lower inpatient cost. Given the substantial financial burden associated with these hernias, future research focused on preventing the development and optimizing the surgical treatment of ventral abdominal wall hernias is imperative.

So17
A COMPARISON OF OUTCOMES FOR SINGLE-INCISION LAPAROSCOPIC AND TRADITIONAL 3-PORT LAPAROSCOPIC INGUINAL HERNIORRHAPHY AT A SINGLE INSTITUTION

Sharon Monsivais, BA, Hannah Vassaur, MS, PAC, Nicole E Sharp, MD, John Eckford, MD, Rob Watson, MD, Daniel Jupiter, PhD, F. Paul Buckley III, MD; Division of General Surgery, Scott and White Healthcare

Purpose: A retrospective chart review comparing single-incision laparoscopic (SILS) inguinal hernia repair and traditional 3-port laparoscopic (LAP) inguinal hernia repair was conducted to assess the safety and feasibility of the minimally invasive laparoscopic technique.

Methods: All SILS and LAP inguinal hernia repairs performed by three surgeons at a single institution between August 1, 2009 and July 30, 2010 were reviewed. Statistical evaluation included descriptive analysis of demographic data including age, gender, BMI, and hernia location (unilateral or bilateral) in addition to bivariate analyses of operative outcomes including operative times, conversions to open, case complexity and complications.

Results: 129 patients who underwent SILS inguinal hernia repair and 76 who underwent LAP inguinal hernia repair were compared. Cases included 92.68% men with a mean age of 55.38 (range 8-86) and a mean BMI of 25.49 (range 17.3-41.7); there were no significant differences in these variables between SILS and LAP cases. A one sided t-test for superiority indicated that average operative time for SILS unilateral cases was statistically significantly shorter than for LAP unilateral cases (57.51 versus 66.96 minutes; p=0.043). For bilateral cases, average operative time for SILS and LAP were similar (81.07 versus 81.38 minutes), but a t-test for non-inferiority, with a non-inferiority margin of five minutes, was not statistically significant (p-value=0.18). In a linear model for operative time including the covariates surgery type, BMI, case complexity, and hernia location, an increase of 1 kg/m2 in BMI increased operative time by 1.23 minutes on average, which was statistically significant. Bilateral cases also took an average of 21.5 minutes longer than unilateral cases, also significant. The presence of an incarcerated or recurrent hernia also proved to be a significant factor, showing an average increase in operative length of 9.23 minutes. Using this model, a test for non-inferiority showed that the SILS technique took no more than five minutes longer than the LAP technique (p-value=0.031). There were no conversions from SILS to multiport technique, but five (3.88%) SILS and three (3.95%) LAP cases were converted to either Kugel or Lichtenstein repairs; this was not a significant difference in conversion rate (Fisher exact p-value 1). Additionally, there was no significant difference in complication rates between SILS and LAP (chi-squared p-value 0.65).

Conclusion: SILS inguinal hernia repair is both a safe and feasible alternative to traditional LAP inguinal hernia repair and can be successfully conducted with similar operative times, conversion rates and complication rates. This comparative study will serve as a starting point for prospective trials, which are essential to confirming equivalence in these areas as well as revealing differences in patient satisfaction with post-operative pain, cosmesis, and quality of life.
Soi8
FEASIBILITY, SAFETY AND OUTCOMES OF TOTALLY EXTRA-PERITONEAL (TEP) LAPAROSCOPIC HERNIA REPAIR IN PATIENTS PREVIOUSLY HAVING PROSTATECTOMY. Philip A Le Page, MBBS, hons, Doug Fenton-Lee, AssProf, Ania Smialkowski, Dr, John Morton, Dr; St. Vincent’s Hospital, Sydney

Introduction. The laparoscopic Total Extra-Peritoneal (TEP) approach to inguinal hernia repair is facilitated by balloon dissection of the extraperitoneal space. Prostatectomy can produce adhesions which can obliterate the extraperitoneal plane. Historically, laparoscopic (TEP) surgery for these patients would be contra-indicated, however the benefits of the TEP approach, particularly with reduced pain and early return to work, may benefit these patients too. The aim of our study was to assess the feasibility, safety and outcomes of the TEP approach for hernia repair in patients having had a previous prostatectomy

Methods: A retrospective case control study was conducted on patients undergoing laparoscopic (TEP) hernia repair between 2004 and 2011 at St Vincent's Hospital, Sydney. There were 52 consecutive cases undergoing TEP hernia repair who had a previous prostatectomy and they were matched to 102 control cases. Clinical data for both groups was collected from the hospital records.

Surgery was undertaken by accessing the infraumbilical extra-peritoneal plane and insufflating the space with balloon and then CO2. Careful dissection of the hernia and cord structures was undertaken followed by placement of pariex mesh. In cases following prostatectomy, the same process was followed but adhesions were carefully dissected, and when bilateral, separate incision and insufflation was undertaken either side of the midline.

Outcome data was obtained from notes and contacting patients by phone and mail and included operative time, intraoperative complications, conversion rate, length of hospital stay, post operative complications (including wound complications and pain) and early and late recurrence.

Results:

<table>
<thead>
<tr>
<th></th>
<th>Previous Prostatectomy n=52</th>
<th>Control Group n=102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average age (years)</td>
<td>69</td>
<td>67</td>
</tr>
<tr>
<td>ASA status (median)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mean F/U (mths)</td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td>Mean Operative time (minutes)</td>
<td>76</td>
<td>54</td>
</tr>
<tr>
<td># Intraoperative complications</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td># Conversion to open surgery</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Minor post-op complications (%)</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Major post-op complications (%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hernia recurrence (%)</td>
<td>0</td>
<td>1%</td>
</tr>
<tr>
<td>Mean length of stay (days)</td>
<td>1.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Chronic pain (%)</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Patient Satisfaction (%)</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Conclusion: This study shows that TEP hernia surgery following prostatectomy is a feasible and safe procedure when conducted in experienced hands, with equivalent low complication, recurrence and pain rate compared to patients not having undergone this previous surgery. Importantly no intra-operative, major complications or recurrence were encountered in this group. Operative time is modestly longer and understandable given the adhesions, and may be justified given the benefits of early discharge and less post-operative pain. Further study dedicated to quality of life issues and comparison to open repair would clarify this.

Soi9
EFFICACY AND SAFETY OF MESH IN LAPAROSCOPIC SURGERY FOR GROIN HERNIA: SYSTEMATIC REVIEW AND META-ANALYSIS Laura Nicol, Xueli Jia, MBBS, PhD, Michelle HainXuan Ting, MBBS, MSC, Kathleen Irvine, Bsc, MCLIP, Angus JM Watson, Bsc, MB, ChB, FRCS; Department of General Surgery, Ward 4a, Raimore Hospital, Old Perth Road, Inverness, UK, IV2 3UJ

INTRODUCTION The efficacy and safety of mesh in laparoscopic surgery for groin hernia is uncertain. A systematic review is conducted to compare the efficacy and safety between different types of mesh for totally extraperitoneal (TEP) or transabdominal preperitoneal (TAPP) groin hernia repair.

METHODS Randomised controlled trials (RCTs) and non-randomised comparative studies published by May 2012 were sought by searching electronic databases including MEDLINE, EMBASE and C莉 (CENTRAL), and by scanning reference lists of retrieved papers. Two reviewers independently screened titles/abstracts, undertook data extraction and study quality assessment.

RESULTS Nine studies involving 2281 patients were included of which five were RCTs and four were non-randomised comparative studies. Four RCTs and three non-randomised comparative studies reported TEP and the other two studies reported TAPP. The study quality was generally high. Median follow up was 16 months (range: 2 to 60 months). Partially-absorbable mesh had a higher hernia recurrence rate (2.4%, 25/1028) compared to non-absorbable mesh (1.6%, 18/1137; 4 studies, RR 1.5, 95% CI 0.80–2.84; Figure 1) but had a significantly lower risk of chronic pain after procedure (5 studies, n=1223, RR 0.25, 95% CI 0.12–0.52; Figure 2). There were no significant differences in the rate of hernia recurrence between light-weight non-absorbable mesh (0.9%, 3/328) and heavy-weight non-absorbable mesh (1.5%, 6/319; 4 studies, RR 0.72, 95% CI 0.19–2.80) or in the risk of chronic pain (one study, n=455, RR 0.52, 95% CI 0.05–5.75).

S020
RECURRENCE RATE OF PARESOPHAGEAL HERNIAS AT ONE YEAR: SYNTHETIC VS. BIOLOGIC MESH Maria C Michael, MA, MD, Edward Borrazzo, MD; Fletcher Allen Health Care

This retrospective study examines the recurrence rates of paraesophageal hernias repaired with synthetic mesh (Crurashoft, Bard) and biologic mesh (Alloderm, Lifecell) at one year follow up. Paraesophageal hernias are uncommon but have potentially high risks of morbidity and mortality from gastric volvulus and incarceration if left unrepaired.
The introduction of synthetic and biologic mesh into the procedure have each been shown to reduce the incidence of recurrence and subsequent reoperation in comparison to primary crural repair (Glandereth et al, 2005 & Oeschlager et al, 2006). However, synthetic and biologic mesh products have not yet been compared directly.

A total of 124 patients underwent laparoscopic paraesophageal hernia repair at FAHC from 2002-2011, and 93 patients had one year follow up including 23 with synthetic mesh and 70 with biologic mesh. Recurrence was assessed using barium esophagram at one year post-procedure. Statistical analysis was performed using Pearson’s Chi Square test, Fischer exact test, and two sided T-test. Radiographic recurrence with biologic mesh and synthetic mesh was 21% (15/70) and 13%(9/23) (p= 0.3), respectively, with an overall recurrence rate of 18%. Symptomatic recurrences, complaints beyond mild dysphagia and bloating attributable to the antireflux procedure, were much less at 10% (7/70) and 4% (1/23) respectively. Gender, age, BMI, and the type of wrap did not have a statistically significant impact on recurrence for repairs with synthetic or biologic mesh.

While the sample size prevents definitive conclusions about the superiority of synthetic or biologic mesh, these observations of patient outcomes give support to the claims that synthetic and biologic mesh are at least equally successful in primary paraesophageal hernia repair.  


**So22** Facilitated Delayed Closure of Open Abdomen in Septic Patients Combining Negative Pressure Assisted Closure (NPAC) With a Dynamic Fascial Suture (DFS) Eneé H Fortelny, MD, Alexander H Petter-Puchner, MD, Simone Gruber-Blum, MD, Andreas Gaderer, MD, Karl S Glaser, MD; Department of General, Visceral and Oncological Surgery, Wilhelminenspital, Vienna Austria

**Introduction:** The aim of this prospective controlled trial is to define the optimal time window for delayed closure after negative pressure assisted closure in the treatment of the open abdomen in septic patients after abdominal surgery. The delayed closure of the abdominal wall after abdominal NPAC treatment is currently a problem due to the high tension of sutures due to the lateralisation of the edges of the fascia. We present early results of an innovative combination of NPAC with a new fascial-approximation technique using dynamic fascial sutures (DFS) and delayed closure of the abdominal wall.

**Methods:** During the first surgical procedure using NPAC-technique the fascia in the midline are approximated with a running suture of elastic vessel loop. At final closure the abdomen can be closed in the midline using a running nonresorbable suture and in some cases in combination with a anterior component separation.

**Results:** 89 patients suffering from an open abdomen following surgery for secondary peritonitis were treated with NPAC and DFS. Delayed closure was achieved in 66 patients (74%) after 9,3 (1-63) days and 4 (1-42) number of revisions. Mortality rate was 28%. 8 superficial and 2 deep wound infection occurred. In 3 cases enteratoamospheric fistulas had to be treated. We recorded no technique-specific complication. 3 incisional hernia were detected in a follow up of 22.9 (1-53) month.

**Discussion:** Using a new technique combining NPAC and DFS in the treatment of the OA, the delayed wound closure by tension-less running suture of the fascia can be achieved with low risk of bursting abdominal walls and incisional hernias.

**So23** QUALITY OF LIFE AFTER TAPP REPAIR COMPARING SPORTS HERNIA AND GROIN HERNIA Gerwin A Bernhardt, MD, Benjamin Molderings, Christian Giessauf, MD, Hans-Jörg Mischinger, MD; Department of Surgery, Medical University of Graz

**Introduction:** Sports hernia is a clinical diagnosis of chronic, painful musculotendinous injury to the medial inguinal floor occurring with athletic activity without the existence of cases with significant groin lump related symptoms and no demonstrable peritoneal sac. In those patients with groin symptoms suggestive of a hernia but no clear physical findings, ultrasound or MRI where appropriate has been performed. These patients have been followed up in terms of improvement in symptoms and recurrence of hernia.

**Results:** Among 92 consecutive laparoscopically repaired inguinal hernias, 11 hernias in 10 patients were found not to have demonstrable peritoneal sac. Two hernias had lump with expansile cough impulse, two had groin pain and the remaining 7 had both expansile lump and groin pain. All these patients were treated by excision of the ‘lipoma’ and placement of a mesh preperitoneally. Patients’ symptoms improved significantly in all the patients till to date. None of them had a recurrence over a median follow up period of 4 years.

**Conclusions:** A proportion of patients presenting with groin pain/with or without expansile groin lump will have an extra peritoneal fat herniation with no demonstrable peritoneal sac. The symptoms could be explained by the protrusion of extra peritoneal fat (‘lipoma’) in to the inguinal canal causing ‘inguinal compartment syndrome’. Clinical awareness and targeted treatment will help in resolution of symptoms.

**S021** EVALUATION OF LAPAROSCOPIC MANAGEMENT OF INGUINAL HERNIA WITHOUT PERITONEAL SAC T Maheswaran, P C Munipalle, T Garud, Y K S Viswanath; South Tees Hospitals NHS Foundation Trust

**Introduction:** It has been noticed with the advent of laparoscopic repair of inguinal hernia that there is a category of patients experiencing groin pain and or lump due to protrusion of extraperitoneal fat into the inguinal canal in the absence of demonstrable peritoneal sac. We present a series of such cases in patients undergoing Laparoscopic Trans Abdominal Pre-Peritoneal (TAPP) repair and discuss their symptoms, management and follow up.

**Methods:** A total of 92 TAPP laparoscopic repairs were carried out in 65 patients in a single unit over the period of 4 years. They were studied prospectively to evaluate those
of a groin hernia. Long term results for laparoscopic hernia repair especially data on quality of life (QOL) are lacking. To the best of our knowledge there are no data on QOL after sports hernia. The aim of this study was first, to compare postoperative QOL data in patients undergoing transabdominal preperitoneal patch technique (TAPP) for inguinal hernia with data from patients undergoing TAPP for sports hernia and second to compare these results with QOL data of the Austrian norm population.

Methods: In this retrospective analysis we included all patients (n=559) undergoing TAPP repair between 2000 and 2005. Fifty patients (8.9%) were operated because of sports hernia or chronic groin pain; the remaining patients because of groin hernia. Thirty-eight patients died of unrelated causes during the follow-up period. We sent out a self constructed hernia questionnaire including the short form thirty-six health survey (SF-36) for QOL evaluation to the remaining patients. QOL data were compared with data from an age and sex matched Austrian norm population.

Results: Finally 362 (70% response rate) completed questionnaires could be evaluated. Patients mean age was 62±16 years. The mean follow-up time was 93±20 months. Thirty-four patients (68% response rate) with sports hernia returned a completed questionnaire. There were no significant differences between groin hernia and sports hernia patients. There was no statistically significant difference between the summary measures PCS and MCS compared to the Austrian population norms (see table); however differences in the SF-36 subscales could be detected.

SF-36 results (summary measures):

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>groin hernia</td>
<td>42.2±4.6</td>
<td>57.9±12.0</td>
</tr>
<tr>
<td>sports hernia</td>
<td>41.7±5.2</td>
<td>59.1±14.5</td>
</tr>
<tr>
<td>norm population</td>
<td>42.6±10.7</td>
<td>53.1±10.7</td>
</tr>
</tbody>
</table>

Discussion: Long term results of QOL after TAPP repair for groin hernia as well as sports hernia are comparable to the norm population. Differences in subscales need to be further analysed.

So25
LAPAROSCOPIC COMPONENT SEPARATION WITH BIO-PROSTHETIC REINFORCEMENT: A SINGLE SURGEON’S EXPERIENCE
Ibrahim Daoud, MD, Brian Pellini, MD, Randall Kimball, MD; St. Francis Hospital, Hartford, CT

Introduction: Laparoscopic component separation has the advantages of preserving the abdominal wall vasculature and does not require the formation of skin flaps. These advantages have the potential to reduce post-operative complications. This study reports a single surgeon’s experience with laparoscopic component separation with bioprosthetic reinforcement.

Method: We present a series of 33 laparoscopic component separations with bioprosthetic mesh over a two year period from February 2010 to July 2012. Data collected included demographics, operative time, length of stay and complications.

Results: Thirty three patients were included with a median age of 63 (36-83). 90% had preexisting comorbidities (40% ASA 2, 55% ASA 3). 60% had at least one prior ventral hernia repair. The median defect width was 11cm (6-19), and median operating time was 225 minutes (150-325). 80% were bilateral component separations: 91% were completely laparoscopic, 8% were combined, and 4% had converted. The bioprosthetic mesh was biologic (human acellular or non-crosslinked porcine). The median length of stay was 6 days, with return of bowel function in 5 days. 8 (24%) patients experienced complications, with 1 (3%) infected seroma and 2 (6%) reoperations for failure of the repair.

Conclusions: Our series correlates with the literature in showing reduced wound complications and similar length of procedure with laparoscopic component separation. Bioprosthetic mesh can be safely used in the repair of ventral hernia using laparoscopic component separation. Long term follow up is necessary to assess the durability of bioprosthetic mesh in these patients. This is one of the largest single surgeon experiences with laparoscopic component separation reported, and one of the first reporting on the routine use of bioprosthetic mesh.

So26
A PROCEDURAL COST MINIMIZATION ANALYSIS FOR HERNIA REPAIRS AND MINOR PROCEDURES BETWEEN A UNITED STATES ACADEMIC INSTITUTION AND A MEDICAL MISSION TO THE DOMINICAN REPUBLIC
Jaime A Cavallo, MD MPH, Jenny Ousley, BS, Jane Ibr, MD, Patricia Barrett, MD, Sara Baalm, MA, Kyle Ward, DO, Margaret M Frisella, RN, Brent D Matthews, MD; Section of Minimally Invasive Surgery, Department of Surgery, Washington University School of Medicine, St. Louis, Missouri

INTRODUCTION: Material supplies and medications constitute the greatest per capita costs for surgical missions to underserved populations. Nonprofit organizations that provide healthcare materials have the potential to minimize procedural costs and increase the number of patients served during limited-budget surgical missions. We hypothesize that supply acquisition at nonprofit organization (NPO) costs will lead to significant cost-savings compared to supply acquisition at US academic institution (USAi) costs from the provider perspective for hernia repairs and minor procedures during a surgical mission.

METHODS: Individual items acquired for a surgical mission to the Dominican Republic (DR) in 2012 were uniquely barcoded for accurate accounting of consumption. Traceability Made Easy® (MASS Group®, Inc.) software was used to generate a custom inventory system. Both the NPO and the USAi unit costs were associated with each item in the inventory. For each procedure sampled, barcodes for all used items were scanned and assigned to the corresponding procedure record. Doses for all administered medications were recorded and assigned to the corresponding procedure record. Mean material costs for each procedure type were calculated, and a cost-minimization analysis between the NPO and the
RESULTS: A total of 126 procedures were performed on 110 patients (M:F= 80:30; age= 45.6 ± 20.4 years). Sampled among these procedures were 13 unilateral inguinal hernia repairs (IHR), 3 bilateral inguinal hernia repairs (BIHR), 9 hydrocelectomies (HC), 3 femoral hernia repairs (FHR), 8 umbilical hernia repairs (UHR), 26 minor procedures (MP) including excisions of benign superficial masses, and 7 pediatric inguinal hernia repairs (PIHR). For each procedure type, the mean medical costs under the NPO versus the USAI platforms, respectively, and the mean cost savings (CS) were as follows: IHR: $62.17 ± $0.74 versus $502.79 ± $684.51 (p=0.0002), CS=$482.66 ± $684.79; BIHR: $51.85 ± $26.87 versus $351.27 ± $184.20 (p=0.0250), CS=$332.46 ± $184.09; HC: $53.73 ± $23.66 versus $141.68 ± $14.11 (p=0.0003), CS=$87.95 ± $13.18; FHR: $55.47 ± $13.44 versus $253.81 ± $54.32 (p=0.0260), CS=$198.02 ± $136.49; UHR: $47.56 ± $31.35 versus $133.05 ± $31.54 (p=0.0078), CS=$85.49 ± $120.90 ± $50.61; MP: $4.59 ± $13.34 versus $38.55 ± $19.03 (p=0.0001), CS=$33.96 ± $17.76; PIHR: $23.92 ± $11.49 versus $134.22 ± $16.61 (p=0.0015), CS=$120.66 ± $14.61. Notably, NPO costs exceeded USAI costs for narcotics, antibiotics, and normal saline.

CONCLUSION: Supply acquisition at nonprofit organization costs leads to significant cost-savings compared to supply acquisition at US academic institution costs from the provider perspective for IHR, HC, UHR, and PIHR during a surgical mission to DR. Item utilization analysis can generate minimum-necessary material lists for each procedure type to reproduce cost-savings for subsequent missions.

So28

HYBRID APPROACH OF VIDEO ASSISTED NECK SURGERY (HAVANS) - ENDOSCOPIC COMPLETE CENTRAL NODE DISSECTION WITH CRANIO-CAUDAL VIEW FOR THYROID CARCINOMA

Akihiro Nakajo, MD, PhD, Hideo Arima, MD, PhD, Munetsugu Hirata, MD, Yoshi Take, MD, Yuko Kidima, MD, PhD, Heiji Yoshimana, MD, PhD, Shoji Natsugoe, MD, PhD; Department of Surgical Oncology, Breast and Thyroid Surgery, Kagoshima University.

Aims:
Endoscopic thyroid surgery includingRobotics with extracapsular approaches is a safety and well-accepted technique. As the next step, we have to apply these endoscopic techniques widely in thyroid cancer treatment, and aim to establish the technique of complete lymph node dissection with same or further quality than conventional open surgery. With the trans-axillary approach or precordial approach which is current mainstream, however, complete dissection of the paratracheal lymph nodes beside the clavicula or sternal notch is likely to be inadequate. For complete endoscopic lymph nodes dissection around the trachea, we consider that operation under the cranio-caudal view is the most important. We developed a new hybrid approach of Video Assisted Neck Surgery (HAVANS) for central node dissection in thyroid cancer treatment. We will introduce the endoscopic complete central node dissection for thyroid cancer patients via the excellent cranio-caudal view in this presentation.

Methods:
To get the fine cranio-caudal view, we developed the new Hybrid approach of Video Assisted Neck Surgery (HAVANS). Hybrid approach technique combines different approaching pathway to the cervical lesion. Prior to the lymph node dissection, we performed total or hemithyroidectomy via gasless precordial or axillary approach. After thyroidectomy, three ports (2-5mm) inserted in front of upper neck lesion of submandibular area for lymph node dissection. In this methods, we can get an excellent cranio-caudal view and access to pre-tracheal and latero-tracheal lymph nodes is easy.

Results:
Total of 25 patients with thyroid papillary cancer received HAVANS and were progressing satisfactorily after surgery. Additional time for endoscopic central node dissection is from 35 to 65 minutes. There is no patient with recurrent laryngeal nerve injury and paralysis. One patient had Horner syndrome in injury of cervical sympathetic nerve. We conclude that the hybrid approach of Video Assisted Neck Surgery is safe and effective for central node dissection for thyroid cancer patients via the excellent cranio-caudal view in this presentation.

Conclusion:
Cranio-caudal view is considered to be necessary for complete central neck node dissection. HAVANS provide easy access to the central node compartment for dissection in endemic thyroid cancer surgery.
LAPAROSCOPIC ADRENAL METASTACTECTOMY: APPROPRIATE, SAFE, AND FEASIBLE

Judy Chen, MD, Ali Tavakkoli, MD; Brigham and Women’s Hospital

Background: The role of adrenal resection in management of metastatic adrenal tumors is not well established. Furthermore, whether such resections should be done laparoscopically or through open surgery is unknown. We aimed to evaluate outcomes of patients who underwent adrenal metastactectomy, comparing outcomes between laparoscopic vs. open approach.

Methods: We retrospectively reviewed our institutional experience with adult patients who underwent an adrenal metastactectomy between 1997 and 2012. Pre-operative tumor size, status of resection margin, OR time, length of stay and use of chemotherapy in the immediate post-operative period were assessed. Median values are reported and p values calculated using Mann–Whitney U test.

Results: Total of 38 patients were identified with lung being the primary site of malignancy in 50% cases; 47.4% (n = 18) were resected laparoscopically and 52.6% (n = 20) patients were done open. In the laparoscopic group, median tumor size was 2.7 cm (range 1.0 - 9.8 cm)(p = 0.03)(Table 1). A negative resection margin was achieved in all laparoscopic cases and 85% of the open cases. Median OR time in the laparoscopic group was 140 min vs. 175 for the open group (p = 0.41). Median length of stay was significantly shorter in the laparoscopic group (4 vs. 5.5 days for the open group; p = 0.017) (Table 1). Over 40% of patients did not require post-operative chemotherapy, with 75% of the cohort alive with a follow up range of 3-90 months.

Conclusions: This series, one of the largest in the literature, confirms that adrenal metastactectomy can lead to good oncological outcomes in selected patients with over 40% of not requiring continuation chemotherapy in the immediate post-operative period. Laparoscopic approach leads to excellent oncological resection margins without increasing OR time, but with a reduction in length of stay (LOS).

<table>
<thead>
<tr>
<th>Laparoscopic approach (n=18)</th>
<th>Open approach (n=20)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median patients age</td>
<td>63</td>
<td>60</td>
</tr>
<tr>
<td>Max tumor size (cm)</td>
<td>2.7</td>
<td>4.6</td>
</tr>
<tr>
<td>Negative Resection Margin</td>
<td>100%</td>
<td>85%</td>
</tr>
<tr>
<td>OR Time (mins)</td>
<td>140</td>
<td>175</td>
</tr>
<tr>
<td>LOS (days)</td>
<td>4</td>
<td>5.5</td>
</tr>
<tr>
<td>No Post-operative Chemotherapy</td>
<td>40%</td>
<td>44%</td>
</tr>
</tbody>
</table>
remained superior with a lower 30-day readmission rate (1.8% vs. 3.6%, P = 0.0215) and cost ($7,662 ± $6,969 vs. $10,644 ± $6,041, P = 0.001)

Conclusion: Current data suggests that robot-assisted Nissen fundoplication procedures do not yet have equivalent perioperative outcomes as conventional laparoscopic procedures.

**S032**

**SURGICAL COMPLETENESS OF ROBOTIC THYROIDECTOMY; A PROSPECTIVE COMPARATIVE STUDY OF ROBOTIC THYROIDECTOMY VERSUS OPEN CONVENTIONAL THYROIDECTOMY**

Sohee Lee, MD, Cho Rok Lee, MD, Seulkee Park, MD, Haiyoung Son, MD, Jung Woo Kim, MD, Sang-Wook Kang, MD, Jong Ju Jeong, MD, Kee-Hyun Nam, MD, Woong Youn Chung, MD, Cheong Soo Park, MD; Department of Surgery, Yonsei University College of Medicine

Introduction: With the application of da Vinci robot system, surgeons can complete a secure thyroidectomy without a noticeable scar in the neck. The aim of this study is to compare the surgical completeness of transaxillary robotic thyroidectomy (RT) with conventional open procedure (OT) in papillary thyroid cancer (PTC) patients.

Methods and procedures: From April 2009 through January 2011, 71 patients with PTC underwent bilateral total thyroidectomy with central node dissection at the Department of Surgery of Yonsei University Health System. All patients performed 30mci radioactive iodine (RAI) ablation and diagnostic RAI scan after ablation. We compared the patient’s clinicopathologic characteristics, and surgical completeness between two groups prospectively.

Results: Thirty-seven patients were OT and 34 were RT. Mean age was significantly younger in RT. Tumor size, the frequency of capsular invasion, multifocality, bilaterality and central nodal metastasis showed no differences between two groups. Stage III was more frequent in OT due to different age spectrum. There was no significant difference in number of retrieved central node, and the incidence of postoperative complications. In terms of surgical completeness, there was no significant difference in RAI uptake ratio in both 30mci RAI ablation and diagnostic scan between two groups. In terms of serum Tg level, both TSH-suppressed and TSH-stimulated Tg showed no significant differences between two groups.

Conclusions: Transaxillary robotic thyroidectomy can be done as effective and the results are as complete as conventional open total thyroidectomy in papillary thyroid cancer patients.

**S033**

**THE MULTI-PHASIC LEARNING CURVE OF ROBOTIC-ASSISTED RECTAL SURGERY FOR AN EXPERIENCED LAPAROSCOPIC COLORECTAL SURGEON: AN ANALYSIS OF 197 RECTAL CANCER PATIENTS**

Kevin K Sng, Dr, Masayasu Hara, Dr, Jae Won Shin, Dr, Byung Eun Yoo, Dr, Kyung-Sook Yang, Seon Hahn Kim, Dr; Division of Colorectal Surgery, Department of Surgery, Korea University Anam Hospital, Korea University College of Medicine, Seoul, Korea

Introduction: Robotic rectal surgery is gaining popularity. We aimed to define the learning curve of an experienced laparoscopic colorectal surgeon in performing robotic rectal cancer surgery. We hypothesized that there are multiple phases in this learning process.

Methods and Procedures: This is a retrospective analysis of data from our colorectal database. Consecutive patients undergoing robotic rectal surgery between July 2007 and August 2011 were identified and placed in chronological order based on operation dates. The CUSUM (cumulative sum) technique was used to analyze the total operating, total robotic, console and docking times. We applied the process of model fitting on the CUSUMs as a fourth-order polynomial, to highlight the different phases in each chart. Pearson Chi-squared test, Fisher’s exact test, Independent Samples t test, One-way ANOVA, Kruskal Wallis test and the Mann-Whitney test were used as appropriate. P value of <0.05 was considered statistically significant.

Results: We identified 197 patients who underwent robotic rectal resection. The mean age, total robotic, console and docking times (minutes) were 65 (145-515), 140 (59-367), 135 (50-356) and 5 (3-40) respectively. CUSUM analysis of docking time showed that the learning curve for robotic docking was reached after 20 cases. CUSUM analysis of total operative, robot and console times demonstrated 3 phases. The first phase from case number 1 to 35 represented the initial learning curve. The second and third phases included cases 36 to 128, and 129 to 197 respectively. The second phase involved more technically challenging cases associated with an increase in operative time. The third phase represented the concluding phase in the learning curve when the operative time decreased and stabilised. Intraoperative complications, age, BMI and ASA grading showed no significant differences. In comparing phase 1 with phase 2/3, we found parameters indicating the increased complexity of cases in the latter 2 phases. In phase 1, 45.7% of patients had their tumours within 7cm from the anal verge compared to 64.2% in phases 2/3 (p=0.042). Neoadjuvant chemoradiotherapy was administered to 2.6% of phase 1 patients compared to 32.7% in phase 2/3 (p=0.000). Splenic flexure was mobilised in 8.6% of phase 1 patients compared to 56.8% in phase 2/3 (p=0.000). Median blood loss was under 50mls in all 3 phases. Between phases 1 and 2/3, there were no significant differences in median lymph nodes harvested (19 vs 15, p=ns) and median distal margin (1.8cm vs 1.7cm, p=ns) but the patients in phase 2/3 had a significantly longer hospital stay compared to those in phase 1 (9 days vs 8 days, p=0.002). No patients in phase 1 had Clavien-Dindo grade 3a/3b complications compared to 8.6% of patients in phase 2/3 (p=ns). Anastomotic leak rate was 5.7% in phase 1 and 10.5% in phase 2/3 (p=ns). Our conversion rate was 0.

Conclusion: At least 3 phases in the learning curve of robotic-assissted rectal surgery are defined for an experienced laparoscopic colorectal surgeon.

**S034**

**A COMPARATIVE STUDY OF ROBOTIC SLEEVE GASTRECTOMY AND ROBOTIC GASTRIC BYPASS: A SINGLE INSTITUTION EXPERIENCE.**

Anthony M Gonzalez, MD, FACS, FASMBS, Jorge R Babaza, MD, FACS, FASMBS, Rupa Sekharan, MD, MD, MD, MAD, Roma Romero, MD, Radomir Kosonovic, MD, Jonathan Arad, MD; Baptist Health South Florida, Florida International University Herbert Wertheim College of Medicine

INTRODUCTION: Obesity has evolved into a worldwide epidemic affecting people of all ages, races and creeds. To date, Minimally Invasive Surgery (MIS) has shown optimal results for weight loss in bariatric patients dealing with morbid obesity. Furthermore, impressive bariatric results have been seen with the introduction of the daVinci robotic to bariatric surgery due to its multiple advantages i.e. 3-D visualization, instrument articulation and improved surgeon ergonomics.

Accordingly, yet to be determined, is which minimally invasive robotic surgery is the best procedure for weight loss in patients with morbid obesity. The purpose of this study is to compare our preliminary experiences of Robotic Sleeve Gastrectomy (RSG) and Robotic Gastric Bypass (RGB).

METHODS: We retrospectively collected, under IRB approval, RSG & RGB data (from 09/2009-06/2012 & 08/2009-05/2012, respectively) that was performed by two surgeons at a single surgery center. All of the robotic procedures were performed using the daVinci® Surgical System. Follow up was achieved at 1-3, 4-6, 7-9 and >12 months after surgery. Information was collected focusing on surgical time, hospital length of stay, postoperative complications and excess weight loss.

RESULTS: This study included 134 RSG and 165 RGB patients. The mean age was 43 (±12.6) and 44.7 (±9.8) years old (P=0.28), and the mean initial BMI was 45 (±7) and 47.4 (±9.8) kg/m2 (P=0.02), in RSG and RGB respectively. Mean surgical
time in the RSG cohort was 106.6 and 140.7 min in the RGB cohort (P < 0.01), as well as a similar mean hospital length of stay of 2.2 days in both groups. Perioperative complications, which occurred in the RSG were: 1 (0.7%) sleeve torsion and 2 (1.4%) thrombotic events, while those seen in the RGB were: 1 (0.6%) stricture, 3 (1.8%) bleeding events and 3 (1.8%) cases of an ulcer formation, in addition there were no leaks noted in either cohort. Postoperative follow up in both groups (RGB and RGB) was conducted at 1-3, 4-6, 7-9 >12 months showing an EWL of 23.3% and 25.1%, 46.2% and 46.5%, 55% and 57.6%, and 71.5% and 68.9% respectively.

CONCLUSIONS: Our results show that both RSG and RGB are safe and effective procedures for the treatment of morbid obesity showing comparable weight loss results, low rates of bleeding, strictures and no evidence of leaking from the anastomotic sites. At one-year follow up, EBL% are similar in both operations. Additional studies with larger numbers, longer follow-up and evaluation of patient satisfaction are still needed.

So35

LAPAROSCOPIC VERSUS ROBOTIC-ASSISTED SURGERY FOR MEDIAN ARCULATE LIGAMENT SYNDROME

Michael Da, MD, William Richardson, Abbas Abbas, MD, Charles Sternbergh, MD, Hernan Bazan, MD, Taylor Smith, MD, Ochsner Clinic Foundation

Introduction: In this study we compare our outcomes using laparoscopic and robotic-assisted treatment of MALS. Median arcuate ligament syndrome (MALS) is an uncommon disorder characterized by postprandial abdominal pain, weight loss, and vomiting related to the compression of the celiac artery by the median arcuate ligament. This syndrome has been classically treated with an open approach. More recently, laparoscopic and robotic approaches have been described.

Methods: A retrospective review was performed on all patients treated for MALS from March 2006 to August 2012 at a single institution. Statistical analysis was performed using Microsoft Excel with two-tailed t tests.

Results: A total of 16 patients with MALS were treated, 12 patients via a laparoscopic approach and 4 patients via a robotic-assisted approach. Patient characteristics and comorbidities were similar between groups. There were no intraoperative or perioperative conversions, complications, or deaths. The mean operative time for the laparoscopic approach was significantly shorter than for the robotic approach (101.7 minutes vs 145.8 minutes, P = 0.049). There was no significant difference in length of hospital stay (1.7 days vs 1.3 days, P = 0.65). Mean length of follow-up for laparoscopically treated patients was 6.8 months, for robotically treated patients 1 month (P = 0.34). Four patients (33%) in the laparoscopic group and one patient (25%) in the robotic group had recurrent post-operative abdominal pain (P = 0.77). Two laparoscopically treated patients (50%) and two robotically treated patients (67%) had stopped taking chronic narcotics post-operatively.

Conclusion: Both laparoscopic and robotic approaches to MALS treatment can be performed with minimal morbidity and mortality. The laparoscopic approach was associated with significantly shorter operative time. While innovative, the true advantages to robotic-assisted MALS surgery are yet to be seen.

So36

LAPAROSCOPIC MONITORED COLONOSCOPIC POLYPECTOMY VS LAPAROSCOPIC RIGHT HEMICOLECTOMY: A COMPARATIVE ANALYSIS ON 187 PATIENTS WITH POLYS IN THE RIGHT COLON

Morris F Franklin Jr, MD, FAS, Song Liang, MD, PhD, Jeffrey L Glass, MD, FAC, Texas Endosurgery Institute

Background: This prospective comparison study focused on the patients with colonoscopic nonresectable polyps in right colon who underwent either laparoscopic right hemicolectomy (LRH) or laparoscopic monitored colonoscopic polypectomy (LMCP) and was specifically aimed at investigating if LMCP can be accepted as a simple and effective approach for removing difficult polyps due to loss of visibility on the polyp’s base, non-accessible locality of polyp, and/or tortuosity of the right colon.

Method: A prospectively designed database of a consecutive series of patients with either LRH or LMCP for benign polyps in right colon from 1991 to 2012 at Texas Endosurgery Institute was analyzed, and all the statistical calculations was performed with on-line MedCalc.

Results: A total 119 patients had LMCP for removing the polyps in the right colon while 77 patients were operated with LRH to manage the benign polyps. In comparison, LMCP showed significant difference from LRH arm on operative time (125.4 +/- 22.3 minutes vs. 144.6 +/- 23.3 minutes p=0.0006), estimated blood loss (34.9 +/- 22.7 ml vs. 114.7 +/- 44.5 ml, p<0.001), hospital stay (8.6 +/- 6.3 days vs. 1.85 +/- 1.09 days, p<0.001). However no difference was found on the size of removed polyps (2.4 +/- 1.0 cm vs. 2.8 +/- 0.7, p=0.16) and intraoperative as well as postoperative complication rates. Moreover 7 patients (6.8%) with LMCP were converted to LRH for the intraoperative pathology of adenocarcinoma, and 5 patients (4.25%) with LMCP also were further managed with partial cecectomy or polypectomy due to colonic wall damage from colonoscopic polypectomy. Lastly all the patients with LMCP had been followed from 6 to 196 months to find no recurrence.

Conclusions: This comparison study demonstrated that LMCP is not only safe and effective approach also causes less surgical damage to the patients with significantly decrease operative time and days of hospital stay, thus it can be promoted to be a alternative approach to remove colonoscopic nonresectable polyps in right colon.

So37

FEASIBILITY OF FULL THICKNESS GASTRIC RESECTION USING MASTER ENDOSCOPIC ROBOT AND CLOSURE BY OVERSTITCH 7V A PRECLINICAL STUDY

Philip W Chiu, MD, S Jhee, Z Wang, Z Sun, Carmen C Poon, T Yamamoto, I Perez, Y Wong, James Lau, MD, Ky Ho, MD; Department of Surgery, Institute of Digestive Disease, The Chinese University of Hong Kong, School of Mechanical Engineering

Objective: Gastric submucosal tumors are often treated by laparoscopic wedge resection. This study aimed to examine the feasibility of performing gastric full thickness resection through a totally endoscopic approach using the MASTER (Master and Slave Transluminal Endoscopic Robot), a novel robotic endosurgical system with two slave manipulators, a grasping and an electrocautery hook deployed through a dual channel endoscope and controlled by surgeon through an intelligent human-machine interface.

Method: The operation was performed in two live porcine models under general anesthesia using the MASTER. Firstly, the anterior wall of the stomach was slung to the abdominal wall using percutaneous suturing device. An imaginary lesion of 5cm was first marked using needle knife. After initial mucosal incision was then made using IT knife, the MASTER was introduced through a long overtube. A circumferential mucosal incision was completed with the MASTER to expose the muscularis propria which was grasped and incised to the serosal layer by electrocautery applied through the hook of the MASTER. The full thickness resection of the gastric wall was completed with retraction using the grasperi and dissection using the hook. While the defect was being created, the luminal space was maintained with traction of the percutaneous sutures. The defect was closed with suture plication using Apollo Overstitch device.

Results: Two full thickness gastric resections were performed in two non-survival porcine models with body weight of 30kg and 35kg respectively using the MASTER. The total procedural time was 56 minutes for the first model, and 70 minutes for the second model. The luminal view was maintained during the whole procedure, and there was no damage to surrounding organs throughout the whole procedure. The
gastric defects were successfully closed using Overstitch with satisfactory gastric distension and no gas leakage afterwards.

**Conclusion:** The current experiment demonstrated the feasibility and safety of a total endoscopic approach for treatment of gastric submucosal tumors - full thickness resection of with MASTER and successful closure of the defect using Overstitch. This serve as important foundation for further clinical trial.

*So38*

**ENDOSCOPIC MANAGEMENT OF HIGH GRADE DYSPLASIA AND INTRAMUCOSAL CARCINOMA: EXPERIENCE IN A LARGE ACADEMIC MEDICAL CENTER** Kyle A Perry, MD, Mario Salazar, MD, Andrew Suzo, Jon Walker, MD, Jeffrey W Hazey, MD, W S Melvin, MD; The Ohio State University Medical Center

**BACKGROUND:** Traditionally, esophagectomy has been the standard treatment for patients with high grade dysplasia and early esophageal cancer. Recently, endoscopic treatment with endoscopic mucosal resection (EMR) and radiofrequency ablation (RFA) has become the preferred approach for the management of these patients in some specialized centers. We report a single institution series of patients undergoing endoscopic management of Barrett’s esophagus (BE) with high grade dysplasia or intramucosal adenocarcinoma.

**METHODS:** A retrospective review of a prospectively-collected database was conducted for patients undergoing endoscopic treatment for BE with biopsy proven high grade dysplasia or intramucosal carcinoma from 2009 to 2012. Patients with nodular BE were managed with EMR followed by RFA alone. The primary outcome measure was progression of BE necessitating esophagectomy. Secondary outcomes included complete eradication of BE, complete eradication of dysplasia, recurrence or progression of BE or dysplasia, and complications of endoscopic treatment. Patients were followed for a median follow up interval of 8 months following completion of RFA treatment. Data are presented as incidence (%) or median (range) as appropriate.

**RESULTS:** During the study period, 87 patients underwent RFA for treatment of BE, and 19 met the inclusion criteria for this study. Three (16%) had a presenting diagnosis of intramucosal adenocarcinoma, and 16 (84%) were treated for high grade dysplasia. Twelve (63%) had long segment BE, and the median length of BE was 5 cm. Ten (53%) patients had nodular BE and underwent EMR prior to ablative therapy. Intramucosal cancer was identified in 3 EMR specimens, and a margin negative resection was achieved in each case. Complete eradication of dysplasia was achieved in 86% of patients, and complete eradication of BE was achieved in 58%.

A median of 2 (1-7) treatments were required, and there were no immediate post-procedure complications. No patients in this series developed strictures requiring endoscopic dilation following RFA. Three patients (16%) developed recurrent dysplasia following complete eradication of BE, and each case was successfully managed with repeat RFA. Three patients (16%) required esophagectomy within 6 months following RFA treatment. Two of these developed nodules containing adenocarcinoma with subsequent margin positive EMR, and the other had persistent nodular BE with extensive low and high grade dysplasia. A complete surgical resection was achieved in each case, and none of the patients developed lymph node metastases.

**CONCLUSIONS:** Complete eradication of high grade dysplasia and intramucosal adenocarcinoma can be achieved via endoscopic therapy, thus avoiding esophagectomy in the majority of patients. However, a subset of patients will fail this treatment approach and require surgical resection. With aggressive endoscopic treatment and surveillance, these patients can be identified at an early stage while curative resection is still possible. Long-term follow up studies are required to determine the rate of recurrent BE and progression rate to cancer over time following successful initial endoscopic therapy in this patient population.

*So39*

**Cholecystectomy after ERCP in the over 80’s: Adding insult to injury?** Ms. Rebecca L Teasdale, Mr. Mukhtar Ahmad, Mr. Bussa R Gopinath; North Tees and Hartlepool NHS Trust

**Aim:** To investigate the outcome of patients, over the age of 80, found to have common bile duct (CBD) stones at endoscopic retrograde cholangiopancreatography (ERCP).

**Methods:** Retrospective analysis of endoscopy database and case notes was carried out on all patients 80 years and over who underwent ERCP between February 2007 and December 2008. Those found to have CBD stones were included. Cases were followed up to present.

**Results:** 68 patients were evaluated. Mean age was 85 (range 80-94). 50 were female, 18 Male. 3 already had and 5 went on to have a cholecystectomy. The patients who did proceed to a cholecystectomy had a mean hospital stay of 14 days (range 3-25) and all developed post-operative complications. 3 were carried out laparoscopically and 2 were converted to open. 2 patients went into acute renal failure post-op (both open cholecystectomy), 2 were treated for a lower respiratory tract infection and 1 for a urinary tract infection. 1 patient had an intra-abdominal collection, which was treated conservatively. 1 represented with biliary stricture and sepis. 60 did not have surgery following their ERCP. 3 patients died during the same admission from cholangitis and the remaining patients were deemed unfit or declined surgery. 11 (18%) patients represented over the follow-up period. 2 patients had biliary colic, 2 cholecystitis, 2 cholangitis, 4 with CBD stones and 1 with a CBD stricture. 2 of these patients presented more than once and 1 died from biliary sepsis. 2 of these patients did not have a sphincterotomy performed, due to abnormal clotting. 9 patients died within the follow-up period from non-gallstone related disease.

**Conclusions:** Surgery in the over 80’s is associated with greater length of hospital stay and incidence of post-operative complications. In patients who do not have symptoms of gallstone disease non-operative management of CBD stones post ERCP + sphincterotomy is a safe alternative.

*So40*

**THE EFFICACY OF ENDOSCOPIC DRAINAGE OF PANCREATIC PSEUDOCYSTS** Kristina Spate, MD, Hannah Palin, Michael Egger, MD, Gary C Vitale, MD; Department of Surgery, University of Louisville

**Introduction:** Mature, symptomatic pancreatic pseudocysts can be managed by an operative or endoscopic approach. The goal of our study is to report the outcomes following a large series of patients who underwent endoscopic pseudocyst drainage at our institution.
Methods: A retrospective chart review was performed on all patients who underwent endoscopic drainage of a pancreatic pseudocyst during the years 2007 to present. The patient data was analyzed with respect to demographics, presence of infection, average number of ERCPS performed, time to resolution following intervention, rate of failure requiring operative drainage and overall morbidity and mortality.

Results: A total of 56 patients had an endoscopic pseudocyst drainage by either a transgastric, transpapillary or combined approach attempted during the study period. There were 27 females and 29 males with a mean age of 55 years. 7 patients were determined to not be amenable to drainage at the time of endoscopy for a total of 49 patients included in this study. Patients underwent endoscopic drainage by a transmural (n=18), transpapillary (n=16), or a combined approach (n=15). The median procedure time was 60 min. (range 2-22cm). 37 patients (7μ%) had sterile pancreatic pseudocysts while 12 patients (4%) had an infected pseudocyst at the time of drainage. 80% of patients (n=39) had complete resolution of their pseudocyst while 8% (n=4) had a greater than 50% reduction in the size following intervention. 2% (n=1) failed to have a reduction in size of their pseudocyst. 10% of patients did not improve after endoscopic drainage and required operative intervention. The mean time to resolution was 7.5 months (range 2-24). The overall complication rate was 6% (n=3) with bleeding (n=2) and a tension pneumothorax (n=1) associated with the procedure. There were 2 unrelated deaths in patients with metastatic cancer which were not procedure related during the study period.

Conclusion: Endoscopic drainage of a symptomatic, mature pancreatic pseudocyst can be performed safely with an overall success rate of 88% and should be attempted prior to an operative approach when an endoscopic drainage is technically feasible.

S042
LONG-TERM OUTCOMES OF ENDOSCOPIC FUNDUPLICATION: 2 YEAR RESULTS FROM THE PROSPECTIVE MULTICENTER U.S. STUDY
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OBJECTIVE: Endoscopic fundoplication (EF) is a recognized procedure for the relief of chronic medically-refractory symptoms associated with gastroesophageal reflux disease (GERD). Safety and effectiveness of EF performed with the Esophyx device have been demonstrated in >25 studies but long-term results have been limited. The aim of this study was to prospectively assess long-term outcomes of EF in a multi-center setting.

METHODS: To date, 33 patients who were enrolled in a multi-center registry completed ≥2-year follow-up. Clinical assessments, including the objective documentation of GERD such as abnormal esophageal acid exposure or esophagitis, suggested that these patients were appropriate candidates for fundoplication. Outcomes included symptom assessment using three GERD validated instruments (GERD-Health Related Quality of Life (GERD-HRQL), Gastroesophageal Reflex Symptom Scale (GERSS) and Reflex Symptom Index (RSI)), satisfaction with current health conditions, proton-pump inhibitors (PPIs) use, healing of esophagitis and normalization of esophageal acid exposure. Daily PPIs for a mean of 8.7 (5.7) years. At 2-year follow-up, 22 patients underwent endoscopy. No denovo esophagitis developed. Esophagitis was eliminated in 8% (8/9) and improved from grade C to grade B in one patient. Hiatal hernia remained the same or was reduced in 65% (11/17) and increased in size in 26% (6/22) of patients since 2008 and was not developed denovo hiatal hernia. The mean heartburn and regurgitation scores were reduced from 13.7 (8.0) and 13.5 (8.3) on PPIs to 5.8 (6.2) and 4.3 (5.5) respectively, p<0.001. Daily bothersome heartburn and regurgitation were eliminated in 64% (14/22) and 78% (14/18) of patients. The mean RSI score was reduced from 21.3 (10.8) on PPIs to 9.6 (7.6), p<0.001. Daily bothersome cough and globus sensation were eliminated in 65% (11/17) and 100% (13/13) of patients. The mean GERSS score was reduced from 30.3 (15.8) on PPIs to 12.5 (11.8), p<0.001. Seventy percent (23/33) of patients completely discontinued PPI therapy. The proportion of patients on daily PPI therapy was reduced from 97% (32/33) before to 21% (7/33) after EF, p<0.001. Fifteen percent of patients remained dissatisfied with their current health conditions compared to 93% before EF, p<0.001. Esophageal acid exposure and number of reflux episodes were normalized in 55% (5/9) and 67% (6/9) of patients with comparable pH tests.

CONCLUSION: According to the present data, the EF with the Esophyx device achieved sustained symptomatic control over a two year period in up to 78% of patients. The need for daily PPIs was eliminated in 79% of patients.

S043
SHORT TERM RESULTS ACCORDING TO GENDER BY PROSPECTIVE STUDY OF 490 LAPAROSCOPIC C-STAGE 0/1 RECTAL CANCER RESECTION
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INTRODUCTION: Gender is known as one of the risk factor of postoperative complication especially leakage after proctectomy. Multi-center prospective study had registered for 490 laparoscopic rectal cancer resections since 2008 to 2010. This study was accessed about difference of short term results between male and female for laparoscopic proctectomy.

PATIENTS AND METHODS: There were 281 males (M) and 110 females (F). Mean age was 59.6 each. BMI and prior abdominal operation were 23.3, 21.9 (p<0.01) and 16.4, 32.5% (p<0.01), respectively. Mean tumor location from anal verge was 6.7 cm each. Procedures were anterior resection (AR): 79%, 86%, intersphincteric resection (ISR): 19%, 12%. Rates of pathological Stage 0/1 were 70% and 66%, respectively. Student’s t test, the Mann-Whitney U test, Chi-square test, and Fisher’s exact test were used as appropriate.

RESULTS: Median operative time and blood loss were 283 min., 256 min. (p<0.01) and 35g, 20g (n.s.). Conversion rates were 1.8% (5 cases) and 1.4% (3 cases) (n.s.). Intraoperative organ injury and anastomotic trouble including rectal transaction were 1.8%, 2.5% (n.s.) and 2.5%, 0.4% (p<0.05). There was no mortality in both gender. Postoperative complications occurred in 30.6% and 14.8% (p<0.001). Popular complications were as follows; wound complication: 13.2%, 3.3% (p<0.01), ileus: 8.5%, 2.9% (p<0.05), anastomotic leak of AR and ISR: 11.7%, 3.9% (p<0.01). Anastomatic leak of only AR was 11.8% (26/221) and 3.9% (1/25) (p<0.01). Median postoperative hospital stay was 12 and 11 days (p<0.01).

CONCLUSION: Male was risk factor of postoperative complications, especially anastomotic leak and wound complication in laparoscopic proctectomy.
**So43**

**REAL-TIME OPTICAL DIAGNOSIS FOR SURGICAL MARGIN IN LOW RECTAL CANCER USING MULTIPHOTON MICROSCOPY**

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**Background:** Multiphoton microscopy (MPM), based on the advancement of the field of non-linear optics and femtosecond lasers, has been shown to provide real-time detailed information on tissue architecture and cell morphology in live tissue. The purpose of this study was to evaluate the feasibility of using MPM to make real-time optical diagnosis for surgical margin in low rectal cancer.

**Methods:** Thirty fresh, unfixed, and unstained full-thickness surgical margins in low rectal cancer underwent MPM examination and then went through routine intra-operative pathological frozen procedure. MPM images were compared with golden standard hematoxylin-eosin (H-E) stained images.

**Results:** MPM images were obtained by two photon-excited fluorescence signals from tissue sample. Peak multiphoton autofluorescence intensity was detected in mucosa excited at 800 nm. In the normal area of surgical margin, MPM revealed regular tissue architecture and cell morphology, including a typical foveolar pattern with central, round crypt openings, and glands lined by epithelial cells and goblet cells. In the cancerous area of surgical margin, MPM demonstrated irregular tubular structures, reduced stroma, and cellular and nuclear pleomorphism. Cancer cells, characterized by irregular size and shape, enlarged nuclei, and increased nuclear-cytoplasmic ratio, were identified by MPM images, which were comparable to H-E stained images.

**Conclusions:** It is feasible to use MPM to make real-time optical diagnosis for surgical margin in low rectal cancer. With miniaturization and integration of colonscopy or probe, MPM has the potential to provide real-time non-invasive “optical biopsy” for surgical margin in low rectal cancer in the near future.

**Key words:** Multiphoton microscopy; Real-time diagnosis; Surgical margin; Low rectal cancer; Pathology.

**So44**

**SYSTEMATIC REVIEW AND META-ANALYSIS OF THE EFFECTIVENESS OF COLORECTAL CANCER TUMOR BOARDS**

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**INTRODUCTION:** Over the last few decades, decision-making in colorectal cancer management has evolved from individual surgeons and oncologists, to Multi-Disciplinary treatment planning. There is almost universal approval for this strategy, despite the fact that to date, there is little evidence for its effectiveness in improving outcomes. The aims of this review and meta-analysis were to identify the available literature on Colorectal Cancer Multidisciplinary teams. Specific questions concerned identifying studies that investigated tumor board processes and implementation of decisions, as well as the impact of tumor boards on decisions and clinical outcomes.

**METHODS AND PROCEDURES:** Systematic literature searches of Embase, Medline, PsycINFO and Cochrane Library were undertaken. Search terms included “colorectal”, “cancer”, “multidisciplinary” and relevant MESH derivatives. Reference lists and the grey literature were also searched. Only empirical articles were included by two independent reviewers, with any discordant decisions arbitrated by a third reviewer. After title screening, abstract and full text review (according to PRISMA guidelines), 26 articles were finally included in the review. Data abstracted from the included papers included population size, patient characteristics, healthcare professional characteristics, setting of the tumor board, study design, and study findings. The studies were divided into three groups – studies that presented data on tumor board running, implementation of tumor boards on pre-treatment decisions, and the impact of tumor boards on patient outcomes. Meta-analysis of three separate sub-groups was undertaken – use of MRI/TRUS for staging in rectal cancer, positive margins and 3 year overall survival rates. Random effects meta-analysis was used to aggregate the data, and the odds ratio (OR) was the summary statistic used.

**RESULTS:** A total of 3116 articles were retrieved. Application of the inclusion criteria excluded 3092 articles. 6 further articles were identified from hand-searching, and of these 2 fitted the inclusion criteria. A final list of 26 included articles from 8 countries was completed, published in peer reviewed journals between 2003 and 2012 inclusive. Reported data suggested that not all hospitals had weekly tumor boards, and attendance of staff members was variable. However, clinicians found working within tumor boards useful, and it positively affected pre-treatment decisions such as use of appropriate imaging and adherence to guidelines. Furthermore there was some improvement in clinical outcomes dependent upon the tumor board meeting. Meta-analysis demonstrated a significant association between the introduction of tumor boards and improved use of MRI / TRUS for local staging in rectal cancer (four studies, 96 patients, OR 7.62, 95% CI 2.07 to 28.02, the decrease of positive resection margins (three studies, 823 patients, OR 0.33, 95% CI 0.17 to 0.67) and improved overall survival at 3 years (three studies, 1375 patients, OR 1.81, 95% CI 1.13 to 2.91).

**CONCLUSION(S):** Colorectal cancer tumor boards are becoming increasingly popular with evidence to suggest they have improved colorectal cancer care and survival. Early involvement of the multi-disciplinary team and discussion of patients at tumor board meetings maybe an optimal strategy for delivering cancer care fit for the 21st Century.

**So45**

**CRITICAL APPRAISAL OF LEARNING CURVE FOR SINGLE INCISION LAPAROSCOPIC RIGHT COLECTOMY**

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**INTRODUCTION:** Single incision laparoscopic colectomy (SILC) has emerged as a viable minimally invasive (MI) approach with benefits and limitations yet to be fully elucidated. Although shown to be safe and feasible, determination of the learning curve has not been fully addressed. Our aim was to identify a learning curve for SILC right hemicolectomy (RH) and to determine the incidence of operative failure and complication rates during this phase.

**METHODS AND PROCEDURES:** Over a two-year period, data from 54 consecutive SILC RH cases performed by the same surgeon were tabulated in an IRB approved database. A learning curve was generated utilizing cumulative sum (CUSUM) methodology of the operative time (OT) across the case sequence. A separate learning curve was generated utilizing risk-adjusted CUSUM (RA-CUSUM) analysis taking into account patient risk factors and operative failure. Risk factors were defined as age ≥75 years, ASA ≥3, BMI ≥30 kg/m2,
RESULTS: Patients had a mean age of 63.6±1.5 years, BMI of 27.3±3.9 kg/m², and median ASA of 2. The mean OT and LOS were 123±28.9 min and 3.4±2.4 days, respectively. There were a total of 10 complications, no conversions and no oncologic failures. CUSUM analysis of OT identified the achievement of the learning phase after 30 cases. When taking into account both analyses, the rate of operative failure was not statistically different between the initial 30 and the final 24 cases.

CONCLUSIONS: We present a multi-dimensional learning curve analysis for SILC RH taking into account OT, risk factors and failure rates. In our experience, the learning curve is achieved between 30 to 36 cases. Most importantly, results indicate that offering this MI approach does not result in increased complications or harmful results even in the early phases of the learning curve.

So46
IMPACT OF COMORBIDITY ON OUTCOMES AND OVERALL SURVIVAL AFTER OPEN AND MINIMAL INVASIVE ESOPHAGECTOMY FOR LOCALLY ADVANCED ESOPHAGEAL CANCER. James P Dolan, MD, Taranjeet Kaur, MBBS, Brian S Diggs, PhD, Renata A Luna, MD, Paul Schipper, MD, Brandon Tieu, MD, Brett C Sheppard, MD, John G Hunter, MD; Oregon Health & Science University

Introduction: Minimally invasive esophagectomy (MIE) was introduced with the intent of lessening the mortality and morbidity related to esophagectomy as compared to the open approach. More recently, comparisons have been made in regard to oncological equivalence between the two approaches. The aim of this study was to examine the impact of the Charlson Comorbidity Index on predicting outcomes and overall survival after Open and MIE.

Methods: We conducted a retrospective analysis of a prospective database between 1995 and 2011. All patients who underwent esophagectomy for locally advanced esophageal cancer (stage II and III) were selected. A total of 146 patients were analyzed and separated into two groups, Open esophagectomy (Open) and MIE. Risk adjustment for each patient was performed using Charlson Comorbidity Index-Grade (CCI-G). The outcomes of interest were operative time, intraoperative estimated blood loss (EBL), lymph node harvest, length of hospital stay (LOS), major complications, 30-day mortality and overall survival. Multivariate linear, logistic and cox proportional hazard models were used to adjust for the effect of approach, age, gender, BMI, and CCI-G on the outcomes.

Results: Sixty four patients (44%) underwent Open while seventy one (49%) had MIE. An additional eleven (7%) had to be converted and were classified with the MIE for further analysis. There was no significant difference between MIE and Open in terms of operative time but MIE had less intraoperative EBL (mean 234 mL, \( p < 0.001 \)). Lymph node harvest was also higher (mean 7 nodes, \( p < 0.001 \)) and LOS was shorter for MIE (ratio 0.80, \( p = 0.018 \)). Major complications occurred in 33% of patients in the MIE and 35% of patients in the Open group (\( p = 0.988 \)) while 30-day mortality was 2% in MIE and 5% in Open (\( p = 0.459 \)). Estimated survival at 3 years was 52% for MIE, 48% for Open and at 5 years 42% for MIE and 37% for Open (\( p = 0.513 \)). Age, gender and BMI did not have any significant effect on the outcomes or overall survival. Charlson Comorbidity Index-Grade influenced outcomes with the operative time (mean 129 minutes, \( p = 0.004 \)), LOS (ratio 2.3, \( p < 0.001 \)), and major complications (odds ratio 10.1, \( p = 0.048 \)) worse for CCI-G 3 compared to CCI-G 0. Overall survival was worse for CCI-G 1 in comparison with CCI-G 0 (hazard ratio 1.99, \( p = 0.027 \)).

Conclusions: MIE is a safe alternative to Open esophagectomy for treatment of locally advanced esophageal cancer. Compared with Open esophagectomy, MIE decreases intraoperative EBL and LOS without increasing operative time, morbidity, or mortality related to the procedure. In addition, presence of comorbidities, as measured by CCI-G, increases operative time, length of hospital stay and post-operative complications while worsening overall survival.

So47
DOES LAPAROSCOPIC ADRENALECTOMY JEOPARDIZE ONCOLOGIC OUTCOMES FOR PATIENTS WITH KNOWN OR SUSPECTED ADRENOCORTICAL CARCINOMA? Amanda Cooper, MD, Mouhammed Habra, MD, Elizabeth Grubbs, MD, Brian Bednarski, Anita Ying, MD, Alexandria Phan, MD, Nancy Perrier, MD, Jeffrey Lee, MD, Thomas Aloia, MD; The University of Texas M.D. Anderson Cancer Center

Introduction: For patients with known or suspected adrenocortical carcinoma (ACC), considerable controversy exists over the use of laparoscopic adrenalectomy. The purpose of this project was to assess recurrence patterns in patients with a pathologic diagnosis of ACC treated with laparoscopic versus open adrenalectomy.

Methods and Procedures: All patients referred to our center with a diagnosis of ACC from April 1, 1993 to May 1, 2012 were reviewed. Three groups of patients were compared: those referred after open resection elsewhere, those referred after laparoscopic resection elsewhere, and those treated primarily at our center (all resected by open approach). Overall survival were compared between groups using Kaplan-Meier curves.

Results: During the study period, 46 patients presented after laparoscopic resection at an outside institution, 215 patients after open resection at an outside institution, and 45 patients were treated at our institution with open resection. For the laparoscopic group, median pathologic tumor size was 8.0 cm (range 1-15 cm) vs. 12.0 cm (3.5-16 cm) for the open at outside institution group and 12.0 cm (4-30 cm) for the group resected at our institution (\( p = 0.002 \)). In the laparoscopic group, 52.2% of patients developed a peritoneal recurrence at a median time of 5.9 months, compared to 4% at a mean time of 14.2 months in the open at outside institution group and 20.0% at a mean time of 14.4 months in the open at our institution group (\( p = 0.002 \) for peritoneal recurrence, Figure). Peritoneal recurrence after laparoscopic resection was salvageable with subsequent surgical intervention in only 8.3% of patients versus 18.6% in the open group.

Conclusion: Despite typically being performed in patients with smaller tumors, laparoscopic adrenalectomy for ACC is associated with higher rates of peritoneal recurrence. For patients with known or suspected ACC, the oncologic benefits of open resection outweigh the short-term benefits of minimally invasive surgery.
End-to-end hand sewn anastomosis versus side-to-side stapled anastomosis in laparoscopic right colectomy: A prospective randomized controlled trial. M Bun, MD; A Canelas, MD; F Carballó, MD; E Grzona, MD; M Laporte, MD; C Peczán, MD; N Rotholtz, MD; Colorectal Surgery Division - Hospital Alemán de Buenos Aires. Argentina.

**BACKGROUND:** The superiority of the different techniques for ileocolic anastomosis is controversial. Although many trials trying to compare both techniques in right colectomies, there is no publications until today comparing these alternatives using the laparoscopic approach.

**Objective:** The aim of this study is to compare the outcome of the End-to-end hand sewn anastomosis versus side-to-side stapled anastomosis in patients undergoing laparoscopic right colectomy.

**DESIGN:** Experimental, randomized controlled trial.

**MATERIALS AND METHODS:** Patients candidates of laparoscopic right colectomy between January 2006 and May 2012 were included. Patients that required conversion to open surgery; emergency procedures; Crohn’s disease; and surgeries associated with other surgical procedures were excluded. To avoid any bias during colectomy, randomization was performed once completed this stage and proceeded to make the incision for the specimen extraction. Two groups were randomized: End-to-end hand sewn anastomosis (GI) and Side-to-side stapled anastomosis (GII). Surgical time; major and minor complications; reoperation rate; recovery of intestinal function and hospital stay were analyzed. The statistical significance level was defined as p < 0.05. Statistical analysis was performed using the statistical software “SPSS 19”.

**RESULTS:** A total of 230 laparoscopic right colectomies were performed in the study period. One hundred fifty three patients met the inclusion criteria. The mean age was 65.6 (23-90) years. Eighty six (56.3%) patients were male. 144 (94%) were operated for malignant disease. After randomization, 74 (48.3%) patients belonged to the GI whereas 79 (51.7%) GII. Mean operative time was 127.8 ± 34.7 minutes. There was a tendency for having significantly shorter operative time in GI (GI vs. GII: 146.8 ± 49.47 vs 123.8 ± 34.7; P < 0.05). There were no other significant differences between the groups.

**CONCLUSIONS:** The operative time of laparoscopic right colectomy is lower when a stapled anastomosis is performed without affecting any other postoperative variable.
**Methods:** A retrospective review of all patients who underwent sclerotherapy for a dilated gastrojejunostomy between 2007 and 2012 was performed.

**Results:** Forty-eight patients were identified with a median follow up of 22 months (12-60 months). The median age was 42.5 years (range: 22-63 years) and 92% were female. The original gastric bypass procedures were performed between 1991 and 2007. Average weight loss from the primary procedure was 120 pounds (lbs.) (range: 65-273 lbs.). Median weight regain from lowest weight to maximum weight prior to sclerotherapy was 34 lbs. (range: 0-227 lbs.). The median time between initial surgery and sclerotherapy was 8.5 years (range: 2-15 years). Patients underwent a median of 2.5 sclerotherapy sessions (range: 1 - 4). Preprocedure measured median gastrojejunostomy diameter was 25 mm (range: 15-35 mm). Median volume of sodium morrhuate injected was 12.5 ml per session (range: 3-22 ml). 56.2% patients had 1 year or more of follow up, 39.5% had 2 years or more of follow up, and 15% had 4 or more years of follow up. Median weight loss from sclerotherapy to final documented weight was 9.5 lbs., with a range of 53 lbs. lost to 34 lbs. gained. This was not a statistically significant value. The outcomes remained unchanged in multivariate analysis when controlling for volume of sodium morrhuate injected, patient age, gastrojejunostomy diameter, number of sclerotherapy sessions and number of years of follow-up.

**Conclusion:** At long term follow-up of patients undergoing sclerotherapy of the gastrojejunostomy for weight gain following gastric bypass, there is only a marginal weight loss which was not statistically significant in our study population.

**S052**

**SUBMUCOSAL ENDOSCOPY WITH MUCOSAL RESECTION (SEMR): A NEW HYBRID TECHNIQUE OF ENDOSCOPIC SUBMUCOSAL DISSECTION IN THE PORCINE RECTOSIGMOID COLON**

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**INTRODUCTION:** In Western countries ESD has not prevailed due to training issues and a target patient population. We have recently developed a new hybrid technique, SEMR which combines the mucosal safety valve flap (SEMF) method with traditional ESD technique for undermining the flat and laterally spreading colorectal polyyp. The SEMF hybrid technique may be easier and safer. The aim of this study was to evaluate the feasibility of SEMR for the removal of large areas of the mucosa in the porcine rectum and colon.

**METHODS AND PROCEDURES:** All animals underwent general anesthesia with endotracheal intubation. Targeted sites in the rectum and the distal colon were marked by spot coagulation. Submucosal fluid cushions (SFC) were created using 0.83% hydroxypropyl methylcellulose with added Mesna (sodium 2-sulfanylthanesulfonate), followed by a circumferential mucosal incision (IT knife, Olympus America, Center Valley, Pa.). After isolation of the targeted mucosa, balloon dissection was initiated. We used two balloon types, a blunt-tip prototype compliant balloon (4-8 mm, Fast Forward Medical, Minneapolis, Mn) was used only in first 3 pigs and blunt tipped 3-way extraction balloons (8-11 mm, Model No. B7-2LA, Olympus America, Center Valley, Pa.) were used in other 26 pigs. The Balloon was inserted deep into SFC and repeatedly pulled back toward the endoscope tip to disrupt the submucosa and expose the muscularis. Residual strands of submucosa were cut. Dissections were rated by using a visual analog scale ranging from 0 (easy complete dissection) to 5 (failed dissection). This study underwent Institutional Animal Care and Use Committee (IACUC) review, assignment of animal numbers for the study, and approval.

**RESULTS:** Twenty-nine domestic cross-breed pigs with preprocedure weights of 58.9 ± 6.2 kg were used. Total 58 lesions (29 in rectum and 29 in distal colon) were resected using SEMR technique. The complete resection rate was 94.8% (55/58). There were three incomplete resections, 2 due to an errant site location too proximal in the colon where we could not create a robust SFC and 1 due to the floppy prototype balloon catheter tip. The median resected size was 6.0 cm (range 2.0-8.6). The median procedure time was 25 min (8-104). Dissection difficulty ranged from 0 to 5, with a median of 1 and mean of 1.5 ± 1.5. The perforation rate was 1.7% (1/58), a single uninfiltated balloon catheter perforation of the MP occurred in a dissection site just above 20 cm from the anus with a suboptimal fluid cushion. There were no mucosal perforations and no other major complications.

**CONCLUSIONS:** Large mucosal target sites in the rectum and distal colon of the pig could be safely removed en bloc by means of a hybrid technique, SEMR, combining elements of ESD with our SEMF method.

**S053**

**MULTIVARIATE ANALYSIS OF RISK FACTORS FOR WOUND INFECTION AFTER LAPAROSCOPIC COLORECTAL SURGERY**

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**Introduction:** Surgical site infection is the most common complication after colorectal surgery. Laparoscopic colorectal surgery appears to lower the incidence of wound infection. The aim of this study is to identify the risk factors associated with surgical site infection after laparoscopic colorectal resection.

**Methods:** Patients undergoing colorectal resections at Ohio State University Medical Center between Jan 2006 and Dec 2012 were included in the study. Univariate and multivariate analyses were performed. The following variables were assessed: cancer, inflammatory bowel disease, BMI, diabetes, COPD, use of hand assistance, use of immunosuppressant medications, smoking and utilization of Pfannenstiel incision for specimen extraction.

**Results:** A total of 333 patients met inclusion criteria. The overall incidence of wound infection was 11%. A higher BMI, presence of IBD, and hand assist procedures were associated with a significantly higher risk of infection whereas use of a Pfannenstiel extraction site was associated with lower infection rates. Logistic regression model with significant predictors showed that these factors retained statistical significance. Odds ratio for wound infection with IBD, hand assistance and BMI (per unit increase) were 4, 2 and 1 respectively.

**Conclusion:** While most infections are associated with no modifiable risk factors, our study suggests that use of Pfannenstiel extraction site and avoidance of hand assistance may result in lower infection rates.

**S054**

**SYSTEMATIC EVALUATION OF DECISION-MAKING IN COLORECTAL CANCER TUMOUR BOARD MEETINGS: DEVELOPMENT AND VALIDATION OF A QUALITY ASSESSMENT TOOL**

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**Introduction:** Tumor board meetings have become an accepted mechanism for decision-making in colorectal cancer management. However the quality of these meetings can be variable resulting in sub-optimal decisions and poor treatment outcomes. This study aimed to systematically examine aspects of colorectal cancer decision-making, so as to develop and validate an evidence-based, user informed tool that could reliably measure the quality of colorectal tumour board meetings.

**Methods and Procedures:** A multi-phased approach comprising of quantitative and qualitative methodology identified the current best evidence on colorectal cancer tumor boards (phase 1: systematic review) and expert user opinion on outcomes measures for assessing how well colorectal cancer tumor boards functioned (phase 2: qualitative semi-structured interviews with 20 Attendings of
the tumour board; analysed independently by 2 researchers using emergent theme methodology). This information was used to develop a tool, termed Colorectal Multidisciplinary Team Metric for Observation of Decision-Making (MDT-MODE), which was content and face validated (phase 3; questionnaire study with 27 experts on Colorectal cancer). Finally MDT-MODE was used by two blinded observers to independently assess decision-making in colorectal MDTs (phase 4; observational study, t-test used to analyse whether scores were better than average). Inter-observer reliability was assessed using Intraclass-correlation-coefficient (p<0.05 = significance).

RESULTS: Phase 1 and 2: A total of 26 articles were included in the systematic review. This suggested that tumour boards affect pre-treatment decisions, adherence to guidelines and clinical outcomes. Interviews highlighted that team member contributions alongside the quality of data presented significantly impact upon the decision-making process. This information was used to construct the MDT-MODE assessment tool which measures the presentation of case history, radiological and pathological information, chair’s engagement and contributions to decision making, and all members of the tumour board on a 5 point scale (min=1, max=5). Phase 3: The content validity index for MDT-MODE was excellent at 0.82, with each individual item having high content and face validity with experts. Phase 4: 267 patient cases were assessed in 840 minutes of observations across 11 tumour board meetings. Inter-rater reliability was high (ICC = 0.76). Regarding quality of information presented, radiological (mean 4.2, SD. 1.58) and pathological information (mean 3.8, SD. 0.92) was significantly above average (p<0.01). Presentation of patient views (mean 2.1, SD. 1.28) and psychosocial history (mean 1.8, SD. 1.44) was significantly below average (p<0.01). Contributions of the surgeon (mean 4.8, SD. 0.54), the oncologist (mean 3.8, SD 1.60), the radiologist (mean 4.4, SD 1.54 and the pathologist (mean 3.4, SD. 0.54) to the decision-making process was rated as above average (all p<0.01). A decision was reached in 258/267 cases. In cases where a treatment decision was not reached, absence of a key member of the MDT was noted.

CONCLUSIONS: Colorectal MDT-MODE provides an evidence-based, end-user informed approach to assessing decision-making in the management of colorectal patients. By quantifying the quality of a tumor board meeting, it has the potential to identify areas for improving process so as to optimize decision making for cancer care.

So55 IMPACT OF TRAINING SYSTEMS IN LAPAROSCOPIC COLORECTAL SURGERY. COMPARATIVE ANALYSIS OF THE LEARNING CURVE BETWEEN GENERAL SURGERY RESIDENTS, COLORECTAL SURGERY FELLOWS, AND COLORECTAL SURGEONS. M Galván, MD, E Grzona, MD, A Canelas, MD, M Bun, MD, L Laporte, MD, C Peczan, MD, N Rotholtz, MD; Colorectal Surgery Division - Hospital Alemán de Buenos Aires. Argentina.

BACKGROUND: Laparoscopic colorectal surgery requires specific training to achieve adequate results. A number of studies show that volume and learning curve are factors that directly affect the outcome. Laparoscopic colorectomy is a complex procedure not usually included in the general surgery residency curricula.

OBJECTIVE: The objective of this study is to compare the results when laparoscopic colorectal surgery is performed by colorectal surgeons, colorectal surgery fellows and general surgery residents and determine if the procedure is performed safely during their learning curve.

DESIGN: Retrospective comparative study (prospective database).

PATIENTS AND METHODS: Elective laparoscopic resections of right and left colon for malignant and benign pathology were analyzed in the period between June 2000 and June 2012. The series was divided into three groups: procedures performed by staff colorectal surgeons (GI); colorectal surgery fellows (GII); and general surgery residents (GIII). Patients demographics data; operative time; postoperative recovery variables; length of hospital stay; morbidity and mortality rate were compared. Complex colonic resections as well as rectal surgeries were excluded. The statistical significance level was set at p <0.05. Statistical analysis was performed using the statistical software “SPSS 19”.

RESULTS: 619 laparoscopic resections were included. GI: 332 (53.6%), GII: 141 (22.8%) and GIII: 146 (23.6%). Right colon resections were distributed as follows: GI 96 (28.1%), GII 46 (6.8%); and GIII 62 (10%). Left colectomies: GI 236 (38.1%), GII 99 (15.9%); and GII 84 (13.6%). There were no differences in patients demographic data between the groups. Conversion rate was higher in GI (7.5% vs GI: 4.9% vs. 4.7% p<0.05). Intraoperative complications rate was comparable between the groups and there was no difference in recovery parameters. Hospital stay was comparable. The rate of postoperative complications was lower in GI (72% vs GI: 40 (28.3%) vs GII: 42 (28.7%), p <0.05). There were no differences in the anastomotic leak rate nor in the mortality rate between the groups.

CONCLUSION: General surgery residents and colorectal fellows can perform laparoscopic colectomies safely during their training.

So56 Quality of Life impairment after Endoluminal Loco-Regional Resection (ELRR) and Laparoscopic Total Mesorectal Excision (LTME). Emanuele Lezoeche, MD, Bernardino Fabiani, MD, Alessandro M. Paganimi, MD, PhD, Andrea Balla, MD, Annarita Vestri, MD, Lorenzo Pescatorri, MD, Daniele Scoglio, MD, Giancarlo D’Ambrosio, MD, Giovanni Lezoche, MD; Department of Surgery “P. Stefanini”, Policlinico Umberto I, “Sapienza” University of Rome

Introduction: In selected patients with rectal cancer Endoluminal Loco-Regional Resection (ELRR) by Transanal Endoscopic Microsurgery (TEM) is an alternative treatment option instead of Laparoscopic Total Mesorectal Excision (LTME). Quality of life (Qol) data after laparoscopic TEM are controversial and few studies have reported Qol evaluation after TEM. Aim is to compare the short and medium term QoL in T1 rectal cancer patients undergoing LTME or ELRR.

Methods and Procedures: Prospectively collected data from 36 patients with T1, No rectal cancer undergoing TEM (n=17) or LTME (n= 18) were compared. QoL was evaluated using EORTC QLQ-C30 and QLQ-C38 questionnaires, that patients completed preoperatively and at 1, 6 and 12 months after surgery.

Results: One month after LTME, statistically significant worsening was observed in all items of both questionnaires; worsening did not reach significance, as compared to preoperative status, only in global health status (p= 0.205). One month after TEM a statistically significant difference was observed in gastrointestinal (p=0.005) and defecation problems (p=0.001) by QLQ-CR38, and in global health status (p=0.014), in physical (p=0.02) and role functioning (p=0.003), in fatigue (p=0.002) and in pain (p=0.001) by QLQ-C30. Six months after LTME there was a statistically significant worsening in body image (p= 0.009), micturition (p=0.035) and gastrointestinal (p=0.011) problems by QLQ-CR38 and physical (p=0.005) and role functioning (p=0.007), fatigue (p=0.004) and nausea/vomiting (p=0.030) by QLQ-C30. Six months after TEM both QLQ-CR38 and QLQ-C30 questionnaires showed no statistical significance. However, global health status and physical functioning improved. Twelve months after LTME there was significant improvement in defecation problems (p=0.004) and weight loss (p=0.003) in QLQ-CR38 and in global health status (p=0.001), nausea/vomiting (p=0.003) and pain (p=0.005) in QLQ-C30. Twelve months after TEM a significant improvement was observed in emotional functioning (p= 0.012) in QLQ-C30. No significant difference was observed in QLQ-C38.

Conclusions: Functional sequelae and postoperative symptoms are present up to one month after TEM and up to...
Prevalence of residual neoplastic tissue after endoscopic resection of colonic neoplastic polyps: correlation with the surgical specimen

METHODS: Patients with colonic neoplastic polyps treated by laparoscopic resection in a university hospital in Buenos Aires between January 2003 and March 2011 were prospectively analyzed. Those with polyps containing in situ or invasive carcinoma in whom an endoscopic polypectomy with curative intention was performed before surgery were included. The polyp resection margins informed by the pathologist were classified into three groups: complete, incomplete and indeterminate. Primary outcome: proportion of patients with RNT in the surgical sample.

RESULTS: 155 patients undergoing colectomy for colonic poly, 46 with in situ or adenocarcinoma and a previous attempt of curative endoscopic polypectomy were included 52% were men, average age was 63 (40-91). Polyp morphology: 0-I (sessile) 64%, 0-IIp (pedunculated) 17% and 0-IIla (slightly elevated) 19% and average size was 18 mm (9-35) 72% of the polyps contained in situ carcinoma and 26% invasive adenocarcinoma. RNT was found in the surgical specimens of 56% of the patients. Prevalence following polypectomy with forceps (71%), EMR (55%), snare polypectomy 26%. RNT was found in 51%, 43% and 0% of incomplete, indeterminate and complete resections respectively.

SUMMARY AND CONCLUSIONS: A high prevalence of RNT was observed following forceps polypectomy, and when incomplete or indeterminate polypectomy resection margins were informed

The role of hand-assisted laparoscopy in the age of single incision laparoscopy: an effective alternative to avoid open conversion in colorectal surgery

INTRODUCTION: Hand-assisted laparoscopic colectomy has been accepted as an alternative method of traditional open procedure, as well as conventional laparoscopic colectomy. However, it needs an incision for hand and two or more incisions for camera and instruments. In the other hand, there has been continuous effort to make fewer incisions and single incision laparoscopic surgery has rapidly emerged as the preferred surgical approach. If so, is the hand-assisted laparoscopic technique behind the time? We introduce the way to take advantage of it, in the age of single incision laparoscopy, as an effective alternative to avoid open conversion.

METHODS and PROCEDURES: Between August 2008 and August 2012, 562 single-incision laparoscopic colectomies were performed by a single surgeon. During this period, 12 cases needed some changes from the initial approach, giving the conversion rate 2.1% (12/562). Among these 12 cases, five cases were converted to hand-assisted laparoscopy. Conversion was completed by lengthening of the original incision for SILS and addition of two incisions for trocars. Since we used custom-made glove port consisted with three trocars, we disassembled it and used each trocars. No additional cost was incurred.

RESULTS: The indications for conversion were thick adhesion to adjacent structures due to previous inflammation in two patients, excessive tumor fixit in two patients, and extraordinary thick mesentery and uncontrolled bleeding due to preexisting liver cirrhosis in another patient. Four of them were successfully completed without the need for open conversion. One patient with rectosigmoid colon cancer invading bladder was finally opened to avoid vesical trigone injury. The mean operation time of the four patients was 265.0 minutes. The mean estimated blood loss was 587.5 milliliters. The postoperative course was uneventful in except for one patient who had postoperative wound infection. The patient discharged on postoperative days 34 after conservative management.

CONCLUSIONS: Conversion from single incision to hand-assisted laparoscopy in colorectal surgery is feasible and effective. It adds minimal morbidity while preserving advantages of minimally invasive surgery. It could be considered as an alternative to open conversion in cases of single incision laparoscopic surgery, especially when the conversion to conventional laparoscopy doesn’t seem to be helpful.
PRE-OPERATIVE EVALUATION OF GASTRIC GASTROINTESTINAL STROMAL TUMORS: ENDOSCOPIC ULTRASOUND VS CT SCAN

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Introduction: The aim of this study is to compare the preoperative anatomic localization and tumor size measurements of endoscopic ultrasound (EUS) vs abdominal computer tomography (CT) in the resection of gastric gastrointestinal stromal tumors (GIST).

Methods and Procedures: Patients undergoing resection of a gastric GIST from 2006 to 2012 in our institution were included. Only patients who had both pre-operative EUS and CT were included in final analysis. Pre-resection tumor characteristics (anatomic location and size) resulted by EUS and CT were compared to operative location and final pathologic size. Pre-operative imaging complications were also examined.

Results: One-hundred thirty-two abdominal GIST resections (42.4% male) were identified. Average patient specifics included: age - 61.6 ± 15.2 years, BMI - 29.4 ± 7.6 kg/m², tumor size - 5.4 ± 4.2 cm, and LOS - 5.6 ± 3.5 days. Most common presenting symptoms (in order of decreasing frequency) were: pain (14.5%), fever (9%), nausea (9%), abdominal pain (8%), and dysphagia (8%). Seventy-nine resections were performed laparoscopically, 38 were open, 10 were laparoscopic hand-assisted, 4 were robotic and there was a single conversion of laparoscopic to open procedure. Pre-operatively, all patients underwent EGD, 84 underwent CT and 48 underwent EUS; 27 patients were identified who underwent both (CT+EUS). Five CT+EUS were given neoadjuvant therapy (imatinib) and therefore were not included in location or size analysis. Anatomic location and tumor size as determined by EUS and CT were compared to operative anatomic location and final pathologic size. Percent agreement comparing anatomic location determined by EUS and CT to operative location were both high (86.4% for EUS, 77.3% for CT) with no statistical difference between the two (p>0.05). Using linear regression analysis, tumor size determined by EUS and CT were both shown to be significantly correlated when compared to final pathologic size (p<0.001); there was no significant difference in deviation between tumor size measurements from either modality (p>0.05).

Conclusion: Laparoscopic transhiatal esophagectomy can be performed safely with significantly less major complications and shorter hospital stay than open esophagectomy. The reduced lymph-node harvest did not impact overall survival.

PHARYNGEAL PH MONITORING BETTER PREDICTS A SUCCESSFUL OUTCOME FOR EXTRA-ESOPHAGEAL REFLUX SYMPTOMS AFTER ANTI-REFLUX SURGERY

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Introduction: Gastroesophageal reflux disease can be associated with extra-esophageal symptoms (hoarseness, cough, asthma, and globus). However, these symptoms may have a multi-factorial etiology. Proximal pH monitoring has been proposed as a means of identifying patients where reflux is the cause of the extra-esophageal symptoms. To date, it has not been convincingly shown that proximal pH monitoring accurately predicts a satisfactory surgical outcome. Pharyngeal pH monitoring may be a more accurate alternative. The aim of this study was to determine whether proximal esophageal or pharyngeal pH monitoring better identified patients with extra-esophageal symptoms that improved after anti-reflux surgery.

Methods: A retrospective chart review was performed to identify all patients who had anti-reflux surgery for extra-esophageal symptoms and had preoperative pH monitoring and pharyngeal pH monitoring. Esophageal pH monitoring consisted of either a 4-catheter or 5-catheter probe placed at the cardia. Pharyngeal pH monitoring was performed using the Restech® system. A composite score was used to define an abnormal result with each test. Post-operative outcome was assessed at a mean of 20 months. A successful outcome was defined as improvement or resolution of extra-esophageal symptoms.

Results: There were 18 patients (men=6 and women=12) with extra-esophageal symptoms such as hoarseness (67%), cough (61%), asthma (33%), and globus (33%). Typical reflux symptoms were also present in 15/18 patients (dysphagia (36%), regurgitation (44%), and heartburn (67%)). Distal pH monitoring was abnormal in 13 patients (72%). Anti-reflux surgery led to a successful outcome in 12 patients (67%). The presence of typical reflux symptoms in addition to extra-esophageal symptoms did not significantly increase the likelihood of a successful outcome. The relationship between results of proximal esophageal and pharyngeal pH monitoring and a successful outcome are shown (Table). Restech better identified patients with extra-esophageal symptoms who had a successful outcome with anti-reflux surgery (4/9 based on abnormal proximal pH probe versus 11/12 based on abnormal Restech, p<0.05). In two patients with a successful outcome Restech was the only positive test.
SAGES 2013 Scientific Session & Postgraduate Course

Scientific Session Oral Abstracts

**So62 Urgent Laparoscopic Repair of Acutely Symptomatic PEH is Safe and Effective**

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**Introduction:** Acute incarceration of paraesophageal hernias (PEH) requiring urgent or emergent surgery is rare. Patients are often elderly with significant comorbidities and have historically been treated with open incisions. Our study was designed to evaluate the feasibility, safety and efficacy of laparoscopic repair (LPEHR) in patients with PEH and acute gastric volvulus.

**Methods:** We reviewed our prospectively maintained database and identified 269 patients undergoing an initial LPEHR at Geisinger Medical Center between January 2003 and January 2012. Patients were divided into group A (Acute), Group B (elective patients matched 1:3 to group A by age and comorbidity), and group C (all elective repairs). Group A included those admitted with acute symptoms related to PEH undergoing urgent repair. The age, Charlson score, operative time, LOS, morbidity, mortality and recurrence rates were compared using the Wilcoxon rank sum test.

**Results:** Patients in each group were A (n=25), B (n=65) and C (n=229). Eight patients could not be matched due to high Charlson scores. Group A was similar to the matched group B, with no significant differences in age (73.2 vs 73.0; p=0.978), Charlson score (5.56 vs 4.83; p=0.371), BMI (29.6 vs 29.5; p=0.864) or mean operative time (182.9 vs 171.2 minutes; p=0.652). The LOS was significantly longer for the acute group (4.56 vs 2.72 days; p<0.001) and 20% of patients in A required an ICU stay compared to no ICU admissions in B (p<0.001). Group A had 4 major and 16 minor complications (88%) compared with overall morbidity of 17% in group B (p<0.001). However, the recurrence rate was similar between groups (4% vs 3%; p=0.858) at a mean follow up of 16.6 months (A) and 29.4 months (B; p=0.032) There were no mortalities in either group and all patients underwent successful laparoscopic repair.

When compared to all patients undergoing elective LPEHR, Group A was older (mean 73.3; range 54-91) compared to group C (mean 63.2; range 32-98) (p=0.008) and had a higher Charlson score (5.56 vs 3.24; p<0.001). The groups had similar BMIs (29.6 vs 29.4; p=0.998) and operative times (182.9 min. vs 175.7 min; p=0.957). LOS was longer in the acute group A (4.6 vs 2.6 days; p<0.001) and morbidity was significantly higher than group C (44.6% vs 11.5%; p<0.001). Both groups had a low recurrence rate (4% vs 4.6%; p=0.891) at a mean follow up of 16.6 and 24.1 months respectively (p=0.045). There was no significant difference in mortality (0% vs 0.8%; p=0.648).

**Conclusion:** Historically patients presenting with acute symptoms related to PEH have required open repair associated with significant morbidity and mortality. The acute group was older and sicker than our elective LPEHR patients and had more adverse events resulting in a longer LOS even when matched. However, the LOS remained shorter than reported for open repair and did not result in any mortality. The recurrence rates in all groups were low and comparable to elective repairs. We believe that laparoscopic repair of acute PEH is feasible, safe and effective when done in experienced centers.

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**So63 Diaphragmatic Relaxing Incisions during Laparoscopic Paraesophageal Hernia Repair**

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**Introduction:** Laparoscopic paraesophageal hernia (PEH) repair is associated with a high recurrence rate. In a recent randomized trial the recurrence rate exceeded 50% at five years. Similar to repair of other hernias, minimizing tension is a critical factor in preventing recurrence with PEH repair. At the hiatus, tension can occur secondary to a shortened esophagus or widely splayed cura. A Collis-Gastroplasty can address esophageal shortening while diaphragmatic relaxing incisions can address crural tension. The aim of this study is to describe the technique and review the outcomes of laparoscopic diaphragmatic relaxing incisions in patients undergoing PEH repair.

**Methods and Procedures:** Records were reviewed to identify patients who had a relaxing incision during laparoscopic PEH repair. We considered patients to have a PEH when 50% or more of the stomach was intra-thoracic. The right relaxing incision was performed by opening the right crus next to the inferior vena cava, saving a 3 mm cuff of tissue along the cava to allow a patch to be sewn into place. The incision was full-thickness into the right pleural space, starting halfway up the right crus and stopping just below the anterior crus vein (Figure 1). The left relaxing incision starts lateral to the hiatus and follows the course of the rib laterally, typically beyond the spleen (Figure 2). The defect in each case was repaired with a suitably sized 1 mm Gortex patch (Figure 3 & 4). Patients were followed by chest X-Ray and videofluoroscopy at three months and annually.

**Results:** From November 2010 to May 2012, 57 patients had PEH repair and 12 had a relaxing incision to accomplish crural closure. Eight patients were women and four were men, with a mean age of 72 years (58-84). The relaxing incision was right-sided in ten, left-sided in one and bilateral in one patient. All procedures were completed laparoscopically and included a fundoplication. In six patients a wedge-fundectomy Collis-Gastroplasty was performed. There were no major complications. At a median follow-up of 11.8 months, one patient had an asymptomatic mildly...
**SAGES 2013 Scientific Session Oral Abstracts**

**So64 OUTCOMES OF MINIMALLY INVASIVE SURGERY FOR EARLY GASTRIC CANCER IS COMPAREABLE TO OPEN SURGERY – ANALYSIS OF 1,013 MIS AT A SINGLE INSTITUTE**

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**Introduction**
The aim of this study was to compare short and long-term results of minimally invasive surgery (MIS) and open surgery for primary early gastric cancer (EGC) at a single high-volume institute.

**Methods and procedures**
Clinicopathologic and survival data of primary gastric cancer patients who underwent a minimally invasive radical gastrectomy at Seoul National University Hospital from December 2003 to January 2012 were retrospectively analyzed. Patients were stratified into 6 groups: 1) 1013 EGC patients with MIS gastrectomy (MIS) group, 2) 191 distal gastrectomies (DG), 3) 209 pylorus preserving gastrectomies (PPG), and 209 pylorus preserving gastrectomies (PG). For MIS, wide crural approximation was performed. In the short-term outcome analysis, data on 1,112 patients who underwent a radical open gastrectomy from 2004 to 2006 were collected. Because MIS was performed in EGC patients, only patients who were deemed to have EGC by endoscopy and/or endoscopic ultrasound were included in order to match the surgical indications of these two control groups to the MIS group.

**Results**
Review of our database identified 1,013 patients who underwent MIS for gastric cancer; 942 laparoscopic gastrectomies and 71 robotic gastrectomies. The number of MIS increased from 27 cases in 2004 up to 40.6% of all operations for gastric cancer in 2011. 749 distal gastrectomies (DG), 19 total gastrectomies (TG), 36 proximal gastrectomies (PG), and 209 pylorus preserving gastrectomies (PPG) were performed. In the short-term outcome analysis, MIS group showed statistically better result than open group in the post-operative hospital stay (8.7 days vs. 11.3 days, P<0.001), the estimate blood loss (75.4cc vs. 142.3cc, P<0.001), and the complication rate (17.5% vs. 4.8%, P<0.001). In the long-term subanalysis of TG and PG groups, the complication rates were not significant different between two groups but much higher than DG and PPG groups. Univariate analysis revealed that age, sex, several comorbidities, surgical approach, type of gastrectomy and whether there was any combined resection or not were the significant influencing factors on the complication rate. Multivariate analysis showed that not only surgical approach but also age, chronic liver disease, chronic renal disease and whether there was any combined resection or not had significant effect. In the long-term outcome analysis, there was no significant difference between two groups in the 5-year survival rate.

**Conclusions**
MIS for EGC showed better operative results, fewer complication rate and comparable 5-year survival rate. But TG and PG in MIS group were associated with higher complication rate than open group, so caution seems to be needed to overcome the learning-curve.

**So65 COMPARISON OF EGJ DISTENSIBILITY CHANGES DURING POEM AND HELLER MYOTOMY USING INTRAOPERATIVE ENDIFLIP**

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**Introduction**
Peroral esophageal myotomy (POEM) is a novel endoscopic procedure for the treatment of achalasia. The comparative effects of POEM and laparoscopic Heller myotomy (LHM) on esophagogastric junction (EGJ) physiology are unknown. A novel measurement tool, the endoscopic functional lumen imaging probe (EndoFLIP), allows for real-time evaluation of EGJ physiology, including, 1) submucosal tunnel creation, and 2) myotomy. During LHM, after: 1) induction of anesthesia, intubation, and paralysis, 2) submucosal tunnel creation, and 3) myotomy. During LHM, after: 1) induction of anesthesia, intubation, and paralysis, 2) insufflation of pneumoperitoneum, 3) crural opening and hiatal dissection, 4) myotomy, 5) partial fundoplication, and 6) deinsufflation.

**Results**
8 POEM patients and 8 LHM patients underwent intraoperative EndoFLIP measurements. Baseline distensibilities were similar between patients undergoing POEM and LHM. At a balloon distension volume of 50ml, POEM resulted in an overall increase in mean distensibility (pre 2 ±2.5 vs. post 8.6 ±5.5mm²/mmHg; P<0.001). Taken individually, creation of the submucosal tunnel caused an increase in distensibility (from 2 ±2.5 to 4.6 ±7.1mm²/ mmHg; P=0.02), as did myotomy (from 4.6 ±7.1 to 6.6 ±5.5mm²/ mmHg; P=0.01). Changes were similar using 40 and 50ml distension volumes, except that the increase in distensibility after myotomy was not significant with 50ml (5.4 ±4.6 vs. 6.5 ±1.6mm²/mmHg; P=0.15). At an EndoFLIP distension volume of 30ml, LHM also resulted in an overall increase in mean distensibility (pre 1.5 ±1 vs. post 6.1 ±4.2mm²/mmHg; P=0.02). For LHM, neither insufflation of pneumoperitoneum nor intraluminal dissection enhanced EGJ distensibility. Myotomy caused a significant increase in distensibility (from 1.5 ±0.9 to 4.5 ±8.8mm²/mmHg; P<0.001). Partial fundoplication (Toupet in 5 cases, Dor in 3) resulted in a trend towards decreased distensibility (from 4.5 ±8.3 to 3.3 ±4.1mm²/mmHg; P=0.07), and final deinsufflation of pneumoperitoneum caused an increase in distensibility (from 3.3 ±4.1 to 6.1 ±4.4mm²/mmHg; P=0.05). Changes were similar using 40 and 50ml distension volumes, except that the decrease in distensibility after partial fundoplication was significant with 50ml (from 4.6 ±1.3 to 3.4 ±1mm²/mmHg; P=0.02). Overall increases in distensibility as a result of POEM and LHM were similar (30ml distension volume: 6.7 ±1.6 vs. 4.6 ±4.1mm²/mmHg; P=N.S, 40ml: 6.7 ±2 vs. 5.6 ±2.2mm²/mmHg; P=N.S, 50ml: 5.7 ±1 vs. 4.7 ±2.4mm²/mmHg; P=N.S).

**Conclusions**
POEM and LHM result in similar increases in EGJ distensibility intraoperatively. During LHM, the steps of myotomy and final deinsufflation increase distensibility, whereas partial fundoplication may decrease distensibility. During POEM, both submucosal tunnel creation and myotomy increase distensibility. Further study is needed to correlate intraoperative EndoFLIP measurements with postoperative symptomatic and physiologic outcomes.
S066
Lower Esophageal Sphincter (LES) Electrical Stimulation Eliminates Proximal Esophageal Acid Exposure in Patients With GERD – One Year Results
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INTRODUCTION: Chronic electrical stimulation of the LES in patients with GERD, using EndoStim LES stimulation system (EndoStim BV, the Hague, Netherlands), has been shown to enhance LES pressure, decrease distal esophageal acid exposure and improve GERD symptoms.

AIM: To evaluate, in a post-hoc analysis, the effect of electrical stimulation of the LES on proximal esophageal acid exposure measured at 23cm above the manometric upper border of the LES.

METHODS: Nineteen patients (median age 54 yrs.; IQR 47-64; 10 men) with GERD at least partially responsive to PPIs, hiatal hernia < 3 cm, esophagitis < LA grade C underwent laparoscopic implantation of the LES stimulation system. Electrical stimulation at 20 Hz, 220usec, 5-8mAmp in 6-12, 30 minutes sessions was delivered starting on day 1 post-implant. Esophageal acid exposure at baseline and after 12-months of LES electrical stimulation therapy was measured using dual channel pH probe with pH sensors 5 and 23cm above the manometric upper border of LES.

RESULTS: Total, upright and supine values of median (IQR) proximal esophageal acid exposure at baseline were 0.4 (0.1-1.35), 0.6 (0.2-2.1) and 0 (0.0-0.15) %, respectively. The corresponding values for each of these variables after 12-months of LES electrical stimulation therapy were 0 (0-0) % (p=0.001 for total and upright and p=0.043 for supine comparisons). Distal esophageal pH improved from 10.2 (7.6-11.7) to 3.6 (1.5-7.5) % (p=0.001). Seven (37%) patients had abnormal proximal esophageal acid exposure of > 1.1 % at baseline. All seven patients normalized their proximal esophageal acid exposure (p=0.008). In the 7 patients with abnormal proximal esophageal pH, total, upright and supine median proximal esophageal acid exposure values at baseline were 1.7 (1.3-4.1), 2.9 (1.9-3.7) and 0.3 (0.4-9) %, respectively. The corresponding values after 12-months of LES electrical stimulation therapy were 0 (0-0.1), 0 (0-0.2) and 0 (0-0) % (p=0.018 for total and upright and p=0.043 for supine comparisons). Distal esophageal pH for this group improved from 9.3 (7.8-17.2) to 3.4 (1.1-3.7) % (p=0.043). There were no GI side-effects of dysphagia, gas-bloat or diarrhea reported with electrical stimulation therapy. There were no device or procedure related serious adverse events.

CONCLUSION: Electrical stimulation therapy of the LES is associated with normalization of proximal esophageal acid exposure in patients with GERD and may be useful in treating proximal GERD. The LES electrical stimulation therapy is safe and not associated with GI side-effect seen with typical antireflux surgery.

S067
Incidence, mechanisms, and outcomes of esophageal and gastric perforation during laparoscopic foregut surgery: A retrospective review of 1223 cases
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INTRODUCTION: Intraoperative perforation is a potentially major complication of laparoscopic (lap) foregut surgery. We analyzed the incidence, mechanism, and outcomes of intraoperative perforations during these procedures in a large institutional experience.

METHODS: All patients who underwent lap foregut surgery including lap antireflux surgery (LARS), paraesophageal hernia (PEH) repair, Heller myotomy, and reoperative hiatal hernia (redo HH) repair at our institution from August 2004 to September 2012 were reviewed retrospectively. Perforation events and postoperative outcomes were analyzed and complications were graded by modified Clavien system. All data are mean SD (or median) as specified. Statistical analysis was by Fisher exact and Mann Whitney U tests.

RESULTS: A total of 1223 patients were analyzed (381 LARS, 379 PEH repair, 313 Heller myotomy, 150 redo HH). Overall, 51 patients (4.2%) had 55 perforations. The perforation incidence was 1.0% for LARS (N=4), 1.8% for PEH repair (N=7), 5.8% for Heller myotomy (N=18, 5 of which were redo myotomies), and 14.7% for redo HH. Redo HH were significantly more likely to have perforations than primary LARS and PEH repairs (p<0.001). Location of perforations were esophageal in 13 (24%), gastric in 39 (71%), and indeterminate in 3 (5%). Mechanism of perforations for primary LARS were during suture placement (N=3) and bougie insertion (N=1), and in lap PEH repair, traction (N=3), suture placement (N=1), thermal (N=1), and bougie (N=2). Most lap Heller myotomy perforations (N=14, 77%) occurred during the myotomy. Redo HH perforations (N=23) were due to dissection/rap repair takedown in 83% (N=19) and traction injury in 17% (N=4). None of the perforations in any group were related to the retroesophageal dissection. Perforations were recognized and repaired intraoperatively in 43 cases (84%), and postoperatively in 8 patients (16%). Compared to patients with perforations repaired intraoperatively, those discovered postoperatively were more likely to require reoperation (75% vs 2%, p<0.001), had more GI and radiologic interventions (50% vs 2%, p=0.004), and longer total length of stay (median 11.5 vs 4 days, p=0.01). Perforations discovered postoperatively also had higher 30-day perioperative morbidity (88% vs. 30%, p=0.004), and with higher Clavien grade (≥ Grade III: 75% vs 9%, p=NS) One patient in the LARS group whose perforation was recognized intraoperatively died at postoperative day 2 from a pulmonary embolism (2% mortality in perforated patients).

CONCLUSIONS: In a high volume center, intraoperative perforations are uncommon during first time LARS or PEH repair, and are highest with reoperative HH repair. If recognized and repaired intraoperatively, most perforations require minimal postoperative intervention. Unrecognized perforations usually require reoperation, and result in more GI and radiologic interventions, extended hospital stays, and significantly greater morbidity.
**So68**

**COMPLETELY LAPAROSCOPIC TOTAL GASTRECTOMY FOR EARLY AND ADVANCED GASTRIC CANCER**

*Fabrizio Moisan, MD, Enrique Norero, MD, José Galindo, MD, Fernando Crovari, MD, Nicolás Jarufe, MD, Eduardo Vihuela, MD, Sergio Baez, MD, Abad Perez Corrado, MD, Camilo Boza, MD, Alex Escalona, MD, Ricardo Funke, MD; Hospital Clínico Pontificia Universidad Católica de Chile. Hospital Dr. Soto del Río.

**Introduction:** The application of laparoscopic gastric surgery has increased rapidly for the treatment of early gastric cancer. However, total laparoscopic gastrectomy for proximal and middle third advanced tumors remains controversial, particularly in terms of oncologic outcomes.

**Aim:** To report the perioperative morbidity and 5-year survival of laparoscopic curative total gastrectomy in early and advanced gastric cancer.

**Methods:** Retrospective cohort study. Patients between 2005 and 2012 with an R0 resection operated in two Chilean centers were included. A totally laparoscopic technique was used and D2 lymph node dissection was practiced routinely.

**Results:** In 61±13 years, with 63% of males. Perioperative complication rate was 23% (major complications: Esophagojjejunostomy leak 6.3%, duodenal stump leak 2.1%), and no perioperative mortality was observed in this series. Median hospital stay was 8 (IQR 8-12) days. Median number of dissected lymph nodes was 32 (IQR 23-46). Deep of invasion was: T1 52%, T2 13%, T3 15% and T4a 20%. Lymph node category was No 70%, N1 8%, N2 11% and N3 11%. The AJCC stages were 1, 2 and 3 in: 59%, 22% and 18% respectively. Median follow-up period was 30 (IQR 8-51) months. The overall 5 year survival was 77%. Five year survival in advanced and early tumors was 60% and 90% respectively, in N0 and N+ No, 55% and 85% respectively, and according to different AJCC stages, 92%, 53% and 38% in stage 1, 2 and 3, respectively.

**Conclusion:** In this series, with only proximal tumors and half of the patients with advanced gastric cancer treated with laparoscopic total gastrectomy, morbidity and 5 year overall and stage-by-stage survival was similar to open gastrectomy series.

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**So69**

**Laparoscopic versus open resection for colon cancer based on 9-year data: results of our hospital study in 1065 patients.**

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**Purpose:** The aim of this study was to compare the long-term outcome of laparoscopic-assisted colectomy (LAC) and open colectomy (OC) for nonmetastatic colon cancer.

**Materials and Methods:** From January 2003 to December 2011 all patients with adenocarcinoma of the colon were assessed for entry. Adjuvant chemotherapy and postoperative follow-up were similar in both groups. Primary end point was disease free survival and secondary endpoints were overall survival, complications, variables related to recovery and the quality of life.

**Results:** Five hundred and thirty-nine patients entered the study (299 LAC group and 240 OC group). There was a tendency of higher overall survival (St 0: p = 0.0567, NS. St 2A: p = 0.1971, NS. St 2B: p = 0.2982, NS. St 3A: p = 0.6171, NS. St 3B: p = 0.3243, NS. St 3C: p = 0.8873, NS.) for the LAC group. There was a tendency of higher disease free survival (St 0: p = 0.0567, NS. St 2A: p = 0.0478, St 2B: p = 0.0498. St 3A: p = 0.0108) in the LAC group when compared with OC group. Blood loss was lower (p = <0.0001), fluid intake was faster (p = <0.0001), hospital stay was shorter (p = 0.0003) in the LAC group. The occurrence rates of bowel obstruction, wound infection and abdominal wall hernia were lower (p = <0.0001) in the LAC group. There were no differences in the reoperation rate (p = 0.1976, NS) or 30-day mortality (p = 0.1138, NS).

**Conclusions:** LAC is more effective than OC in the treatment of colon cancer.

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**So70**

**Minimally invasive colectomy for complicated diverticular disease in the emergency setting: a safe choice?**

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**INTRODUCTION:** Although minimally invasive surgery has now been proven to be the standard of treatment in elective cases of diverticular disease, very few studies have analysed its role in non-elective cases. The objective of this study is to prove that MIS is a safe and feasible option in the treatment of complicated diverticular disease in the emergency setting.

**METHODS AND PROCEDURES:** Consecutive patients who underwent emergent colectomy for complicated diverticular disease from 2000 to 2011 in a single academic center were analysed from a retrospectively collected database. Morbidity and outcomes were compared between patients who had minimally invasive surgery (MIS) versus those who had open surgery (OS). A second analysis was planned for the sub-group of patients surgically treated because of failure of the medical management.

**RESULTS:** A total of 125 patients were analysed, 39 in the MIS cohort and 86 in the OS cohort. Both cohorts were comparable in terms of age, BMI, ASA and APACHE score. There was a higher proportion of Hinchey III complicated diverticulitis in the OS cohort (47.4% vs 21.9%). Operating time was longer in the MIS cohort (273.6 min vs 241.8 min) but blood losses (170.6 cc vs 441.9 cc), primary anastomosis (84.6% vs 54.6%), overall morbidity (26.5% vs 52.3%), length of hospital stay (5 vs 8 days), time to normal diet (3 vs 6 days), mortality (0 vs 4 deaths) and permanent stomas (5.1% vs 13.9%) all significantly favoured the MIS cohort. Anostomatic leaks were similar in both cohorts (5.1% vs 3%) and only two laparoscopic resections required conversion to open surgery. A sub-group of patients (24 in the MIS cohort vs 18 in the OS cohort) in whom medical treatment failed and had to undergo surgery, was also analysed. Results showed the same benefits in the MIS cohort. In that case, cohorts were comparable in terms of Hinchey classification.

**CONCLUSION:** Minimally invasive surgery seems to be a safe and feasible option in the treatment of complicated diverticular disease in the emergency setting in selected patients. Results of our study suggest that the benefits associated with laparoscopic colectomy found in comparative studies of elective cases could be applied to urgent complicated cases.

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**So71**

**Laparoscopic versus open parastomal hernia repair: an ACS-NSQIP analysis of short-term outcomes**

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**Background:** Parastomal hernia is a frequent complication following the performance of an ostomy. A significant number of cases require operative management. Available data on the use of laparoscopy in the management of parastomal hernia is limited.

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**S072 National Disparities in Laparoscopic Procedures for Colon Cancer**

Monirah Al Nasser, MD, Eric Schneider, PhD, Susan Gearhart, MD, Elizabeth Wick, MD, Sandy Fang, MD, Adil Haider, MD, MPH, Jonathan Efron, MD; Johns Hopkins University

**INTRODUCTION:** Racial disparity in the treatment of colorectal cancer has been cited as a potential cause for differences in mortality. This study compares the rates of laparoscopic procedures performed for colon cancer with respect to race, insurance status, geographic location, and hospital size.

**METHODS:** The Healthcare Cost and Utilization Project: Nationwide Inpatient Sample (HCUP-NIS) database was queried to identify patients with the diagnosis of colorectal cancer (CRC) by the International Classification of Diseases, Ninth Revision (ICD-9) codes. Multivariate logistic regression was performed to look at age, gender, insurance coverage, academic vs. non-academic affiliated institutions, rural vs. urban settings, location, and proportional differences in laparoscopic procedures according to race.

**RESULTS:** 14,502 patients were identified. 4,691 (32.35%) underwent laparoscopic colorectal procedures and 9,811 (67.65%) underwent open procedures. The proportion of laparoscopic procedures did not differ significantly by race: Caucasian 32.4%, African-American 30.04%, Hispanic 33.99%, and Asian-Pacific Islander 35.12% (p=0.080). Among Caucasian and African-American patients, those covered by private insurers were more likely to undergo laparoscopic procedures compared to those covered by Medicare, Medicaid, and the uninsured; whereas, within the Hispanic patients those with Medicare were more likely to have a laparoscopic procedure (see table). The Odd of receiving a laparoscopic procedure at teaching hospitals was 1.37 times greater than in non-teaching hospitals, 95%SCI [1.27-1.47] and did not differ across race groups. Patients treated at urban hospitals demonstrated higher odds of laparoscopic surgery, 2.25, 95%SCI [1.97-2.57] than patients in rural hospitals; this relationship was consistent within races. The odds of undergoing laparoscopic surgery was highest in the Midwest region (0.87, 95%SCI [0.80-0.96]) but higher in the Southern region (1.15, 95%SCI [1.07-1.24]) compared to the Eastern and Western regions.

**CONCLUSION:** Nearly one third of all colon cancer operations are laparoscopically performed. Race does not appear to play a significant role in the selection of the laparoscopic approach for colon cancer. However, there are significant differences in the selection of laparoscopy for colon cancer patients based on insurance status, geographic location, and hospital type.

**Rates of Laparoscopic Colonic Resections Comparing Race and Insurance Type**

<table>
<thead>
<tr>
<th></th>
<th>Medicare</th>
<th>Medicaid</th>
<th>Private</th>
<th>Uninsured</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>30.81</td>
<td>24.92</td>
<td>37.40</td>
<td>20.47</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>African Americans</td>
<td>28.85</td>
<td>17.47</td>
<td>36.93</td>
<td>20.22</td>
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</tr>
<tr>
<td>Hispanic</td>
<td>38.49</td>
<td>20.49</td>
<td>37.42</td>
<td>16.67</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

**S073 Short-term results of randomized study between laparoscopic and open surgery in elderly colorectal cancer patient (Eld Lap study)**

Shoichi Fujii, Phd, MD, Atsushi Ishibe, Phd, MD, Mitsuoshi Ota, Phd, MD, Shigeru Yamagishi, Phd, MD, Kazuteru Watanabe, Phd, MD, Jun Watanabe, Phd, MD, Amane Kanazawa, MD, Yasushi Ichikawa, Phd, MD, Mari Saito, Phd, Satoshi Morita, Ph, D, Chikara Kunisaki, Phd, MD, Itaru Endo, Phd, MD; Yokohama City University Medical Center

**Background** In surgical treatment to the elderly patient who has the dysfunction of the main internal organs, coexisting of securing safety of surgery and the radical cure is a problem. To verify safety and the validity of the laparoscopic surgery to the elderly patient’s colorectal cancer (Eld Lap study) and the uninsured; whereas, within the Hispanic patients

**Patient and method** The laparotomy (Group O) and the laparoscopic surgery (Group L) were examined by randomized study in the cT3-T4a colorectal cancer patients who were 75 or more. The exclusion criteria were patients who had a bulky tumor larger than 8cm in diameter, lower rectal cancer that required pelvic side wall lymphadenectomy, and the past history of laparotomy of the colon resection. The makeup factor was the tumor location (right colon, left colon and rectum). The registration period was three years, and the scheduled number of patients was 200. The primary endpoint was short-term postoperative complication rate, and the secondary was 3-years relapse-free survival rate. The term and Grade of complication were classified by CTCAEv4.0.

**Result** The registration period was extended for one year. One hundred patients (right side 43, left side 28, and rectum 29) were registered in each group from August, 2008 to August, 2012, respectively. There were no differences between both groups in the patient’s factors such as age (80.1-79.8), gonad, the concomitant disease, ASAscore, cT, and c-Stage. There were no differences in the treatment factors such as procedure types and surgeon’s skill, too. The patients that were converted to open surgery in group L were 3 cases (3%). The reason for conversion was an uncontrollable bleeding, a peritoneum metastasis excision purpose, and patient’s hope immediately before the operation, respectively. In the short-term results (O: L), there were significant differences in Grade2 or more complication (%) (30:18), ileus (%) (12:4), the amount of bleeding (ml) (157:63) and operation time (min) (150:172), and the duration of postoperative hospital stay (days) (14:11:7). There was no significant difference in the pathologic proximal margin (mm) (190:199), the distal margin (mm) (74:85), positive rate of circumferential margin (%) (4:3), the number of dissected lymph nodes (24:8:22), and the residual tumor rate (%) (95:99). In the examination according to the tumor location, there were significant differences in Grade2 or more complication in the distal cancer (32:4:5), the amount of bleeding (135:42) and operation time (137:160), and the duration of postoperative hospital stay (15:0:10.0) in the colon cancer. There was a significant difference only in amount of bleeding (212:113) in the rectal cancer.

**Conclusion** The laparoscopic surgery to the elderly colorectal cancer patients did not have the difference in the radical cure compared with the open surgery and short-term results except the operation time were excellent. It is...
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an effective therapeutic procedure for the elderly colorectal cancer patients.

**S074**

**PREDICTING WHO WILL FAIL EARLY DISCHARGE AFTER LAPAROSCOPIC COLORECTAL SURGERY WITH AN ESTABLISHED RECOVERY PATHWAY**

- **Deborah S Keller, MD**, Blake Bankowitz, MS, Justin K Lawrence, MD, Brad J Champagne, MD, FACS, Harry L Reynolds, Jr., MD, Sharon L Stein, MD, FACS, Conor P Delaney, MD, MCh, PhD; University Hospitals-Case Medical Center

**Purpose:** Despite using laparoscopy and enhanced recovery protocols (ERP), some patients are not ready for early discharge. The goal of this study was to identify predictors for patients who might fail early discharge, so that any defined factors might be addressed and optimized.

**Methods:** A review of a prospectively maintained database identified all major elective laparoscopic colorectal surgical procedures between 2009-2012. Patients were divided into Day of Discharge groups: ≤ 3 days and > 3 days. All followed a standardized ERP. Demographic and clinical data was compared using students paired t-tests or Fisher’s Exact test, with p-value < 0.05 statistically significant. Regression analysis was performed to identify significant variables.

**Results:** There were 275 ≤ 3 days patients and 273 > 3 days patients. There were significant differences between groups in BMI (p=0.014), ASA Class (p=0.013), post-operative complications (p<0.001), and 30-day re-operation rate (p=0.0004). There were no significant differences in intra-operative complications (p=0.724), readmissions (p=0.187), or mortality rate (p=1.00). Significantly more patients were discharged directly home in the ≤ 3 days cohort. Using logistic regression, every hour of operating time increased the risk of length of stay > 3 days by 2.35%.

**Conclusions:** Elective colorectal surgery patients with longer operation times and more co-morbidities are more likely to fail early discharge. These patients should have different expectations of the ERP, as an expected 2-3 day stay may not be achievable. By identifying patients at risk for failing early discharge, resources and post-operative support can be better allocated.

**S075**

Laparoscopic complete mesocolic excision (CME) for colon cancer: study design and preliminary outcome from a randomized controlled trial

- **NCT01628250**

- **Bo Feng, MD**, Aiguo Lu, MD, Mingliang Wang, MD, Junjun Ma, MD, Minhua Zheng, MD; Surgery Department of Ruijin Hospital, Shanghai Minimally Invasive Surgery Center, Shanghai jiaotong University School of Medicine

**Background and Objective** With the standardization of total mesorectal excision (TME), outcome of rectal cancer surgery was significantly improved. Recently, Hohenberger demonstrated a novel concept, complete mesocolic excision (CME), for colon cancer surgery, which is associated with a better 5-year overall survival. It is suggested that CME might be a standard surgery for colon cancer. Laparoscopic complete mesocolic excision (LCME) is a concept that using laparoscopic surgery technique to perform a resection for colon cancer. Besides, the segment of the colon containing the tumor, the resection area should include an intact mesocolon as an envelope to encase the possible route for metastasis. The routes include blood vessels, lymphatic drain and etc. Such hypothesis predicts better histopathological and higher oncological results which turns into better survival rate and better quality of life. The aim of this study was to compare the clinical results of LCME and D3-laparoscopic colectomy(L-D3) for colon cancer.

**Design** It was a randomized controlled trial. The primary outcome measures: Histopathological outcomes obtained through the surgeries. The contents of histopathological outcomes are obtained from the surgeries, including the tissue morphology; number of lymph nodes retrieved; and the plane of the resected mesocolon. The secondary outcome measures: Oncological result and 3-year survival rate.

**Results** There were 20 cases and 19 cases in the LCME group and L-D3 group, respectively. All the 20 cases were successfully performed laparoscopic CME and the 19 specimens were evaluated pathologically as mesocolic plane, which is more than that in the L-D3 group. The total number of lymph nodes removed in LCME group was significantly higher than that of the L-D3 group. No significant difference was found in terms of the median operation time, median time for passage of flatus and hospitalization and complications between the two groups.

**Conclusions** Laparoscopic CME with medial access is technically feasible and might become the standardized procedure for colon cancer.

**S076**

**THE USE OF NASOGASTRIC TUBE DECOMPRESSION IN THE ERA OF MINIMALLY INVASIVE SURGERY**

- **Noam Shussman, MD**, Maria Brown, Michael C Johnson, Giovanna da Silva, MD, Steven D Wexner, MD, Eric G Weiss, MD; Cleveland Clinic Florida

**Introduction:** Laparoscopic surgery is associated with well-known benefits, one of which is earlier return of bowel function. Hand-assisted laparoscopic surgery (HALS) may also lead complex cases to be carried in a minimally invasive manner. The possible shorter operative time with HALS favors earlier return of bowel function, but the longer incision may adversely impact the development of postoperative ileus. The aim of this study was to assess and compare the incidence of postoperative ileus and the need for nasogastric tube decompression in these patients.

**Methods and Procedures:** Following IRB approval, we performed a retrospective chart review of patients who underwent elective left-sided large bowel resections with primary anastomosis between 2009 and 2012. Exclusion criteria were urgent operation, stoma creation, ASA IV classification, and postoperative anastomotic leakage. The patients were divided into three groups: conventional laparoscopic surgery, HALS, or open surgery. We evaluated the incidence of postoperative ileus as measured by the use of nasogastric decompression, the time to first flatus and bowel movement, and the time to solid diet tolerance in each group.

**Results:** Two hundred fifty-one patients were included in this study. Eighty patients underwent open surgery, 89 patients underwent HALS, and 82 patients underwent conventional laparoscopic surgery. Demographic characteristics were similar in all three groups. The proportions of patients who needed postoperative nasogastric decompression, the duration of such decompression, the time from surgery to first flatus and first bowel movement, the time to tolerance of solid diet, and the total length of stay were all significantly reduced in the laparoscopic and HALS groups compared with the open surgery group. There were no significant differences in any of these measures between the laparoscopic group and the hand-assisted group. The data are summarized in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Open</th>
<th>HALS</th>
<th>Laparoscopic</th>
<th>P values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Open-HA</td>
<td>Open-Lap</td>
<td>HA-LAP</td>
<td></td>
</tr>
<tr>
<td>Patients (n)</td>
<td>80</td>
<td>89</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>NGT patients (n)</td>
<td>20</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>NGT patients (%)</td>
<td>25.0</td>
<td>4.5</td>
<td>4.9</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>NGT days/patient</td>
<td>0.65</td>
<td>0.21</td>
<td>0.17</td>
<td>0.049</td>
</tr>
<tr>
<td>Length of stay (d)</td>
<td>7.9</td>
<td>5.3</td>
<td>5.7</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>First BM (d)</td>
<td>4.8</td>
<td>5.7</td>
<td>5.7</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
CONCLUSIONS: HALS involves less postoperative ileus than open surgery and is comparable to conventional laparoscopy. Open surgery is still associated with a high incidence of postoperative ileus requiring nasogastric tube decompression.

S077

EMBRYONIC-NOTES THORACIC SYMPATHETIC GANGLIONECTOMY FOR PALMAR HYPERHIDROSIS: RESULTS OF A NOVEL TECHNIQUE AND COMPARISON WITH THE CONVENTIONAL VATS PROCEDURE

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Introduction: Thoracic sympathectomy is considered as the most effective method to treat palmar hyperhidrosis. Although video-assisted thoracic surgery (VATS) confers better cosmesis, some patients are still concerned with the chest wall paresthesia and post-operative pain associated with the chest incision. In order to avoid these disadvantages, we developed a novel surgical technique for performance of sympathectomy by embryonic natural orifice transumbilical endoscopic surgery (E-NOTES) with flexible endoscope. In this study, we compare the outcomes of E-NOTES with Needlescopic VATS thoracic sympathectomy for palmar hyperhidrosis.

Methods and procedures: From January 2010 to April 2011, a total of 66 patients with severe palmar hyperhidrosis were treated with thoracic sympathectomy in our department. 34 transumbilical - transumbilical thoracic sympathectomy were performed via a 3mm umbilicus incision with ultrathin gastroscope, compared with 32 conventional Needlescopic thoracic sympathectomies. Retrospective statistical analysis of a prospectively collected group of patients was performed.

Results: There was no significant difference with regard to gender, mean age, body mass index (BMI), and length of hospital stay between these two groups. The operative time for E-NOTES thoracic sympathectomy was longer than that of VATS thoracic sympathectomy (56 vs 40 min p<0.01). There was no mortality, diaphragmatic hernia, and Horner’s syndrome in both groups. Postoperative questionnaires were returned by all of the treated patients, the mean time from operation to follow-up was 1.4 ± 0.3 years. All 66 patients receiving sympathectomy reported successful treatment of their palmar hyperhidrosis following surgery as defined by completely dry hands. Compensatory hyperhidrosis was noticed in 7 (20.1%) patients and 6 (18.8%) in the E-NOTES and VATS groups respectively (p>0.05). Post-operative pain and paresthesia was significant less for the E-NOTES group than open surgery (Table 1).

<table>
<thead>
<tr>
<th></th>
<th>Open</th>
<th>HALS</th>
<th>Laparoscopic</th>
<th>P values</th>
</tr>
</thead>
<tbody>
<tr>
<td>First flatus (d)</td>
<td>3.9</td>
<td>3.1</td>
<td>3.0</td>
<td>0.007 0.006 0.69</td>
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<tr>
<td>Tolerated solids (POD)</td>
<td>5.6</td>
<td>3.9</td>
<td>3.7</td>
<td>&lt;0.001 &lt;0.001 0.65</td>
</tr>
</tbody>
</table>

Conclusions: E-NOTES thoracic sympathectomy is a safe and efficacious alternative to the conventional approach. It can further reduce post-operative pain and chest wall paresthesia. In addition, this novel procedure affords maximum cosmetic benefits because the surgical incision is hidden in the umbilicus.

S078

A Randomised Controlled Trial to Evaluate the Impact of Instrument and Laparoscope Length on Performance and Learning Curve in Single Incision Laparoscopic Surgery

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Introduction: This randomised controlled trial evaluated the effect of varying instrument length on simulated Single Incision Laparoscopic Surgery (SILS) performance. SILS further reduces the invasiveness of laparoscopic surgery. The potential benefits include enhanced cosmesis and reduced pain. However, instrumentation entering adjacent to each other creates difficulties by reducing triangulation and potentially increasing both internal and external collisions. An innovative method of overcoming some of these challenges is to vary instrumentation length.

Method: Surgeons were eligible if they had performed a minimum of 5 laparoscopic procedures as primary surgeon. Participants completed baseline testing involving one repetition of both the peg transfer (PEG) and pattern cutting (CUT) tasks from the validated Fundamentals of Laparoscopic Surgery (FLS) curriculum using a conventional laparoscopic setup. Subjects were stratified based on surgical experience and randomised into one of 3 trial arms: The control group used standard length laparoscope (31cm) and a standard length laparoscope (50cm), Group 1 used 1 longer bariatric length instrument (42cm) and 1 standard length instrument and a standard length laparoscope and Group 2 used standard length instruments and a longer bariatric length laparoscope (42cm). The trial was undertaken in two phases using a validated SILS modified FLS box trainer. Phase one involved 25 repetitions of PEG. Phase two involved 5 repetitions of CUT. FLS scoring parameters and the validated hand tracking Imperial College Surgical Assessment Device (ICSAD) measured performance. NASA TLX workload assessment was issued at trial completion. Learning curves were generated using non-linear regression allowing calculation of the learning plateau (surgeons theoretical maximum performance) and learning rate (number of repetitions to reach 90% of maximum score). A non-parametric approach was used for statistical analysis.

Results: Twenty-three surgeons were recruited to Control (n=7), Group 1 (n=9) and Group 2 (n=7). There were no significant differences in operative experience or baseline FLS scores of PEG and CUT. Phase 1: Peak FLS score was significantly higher in Group 1 compared to control (p<0.05). Learning curves demonstrated no difference in learning rate; however, Group 1 had a significantly higher learning plateau than control (p<0.05). Fifteen surgeons completed CUT in phase 2: Control (n=5), Group 1 (n=6) and Group 2 (n=4). Group 1 revealed a trend towards higher peak FLS scores over control group (p =0.067), NASA TLX workload assessment showed participants in Group 2 (p<0.05) subjectively perceived higher performance than control. ICSAD revealed no significant differences in total path length or number of hand movements between groups in both phases.

Conclusions: This study demonstrates that varying instrument length can improve performance in a simulated SILS model. The combination of 1 bariatric length and 1 standard length instrument conferred highest performance. This could be a feasible and simple solution to optimise SILS ergonomics with equipment readily available in many minimally invasive surgical units.

<table>
<thead>
<tr>
<th></th>
<th>E-NOTES</th>
<th>VATS</th>
<th>P value</th>
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<tr>
<td>Pain score (visual analogue scale)</td>
<td>(mean±SD)</td>
<td>4.0 ± 0.5</td>
<td>3.2 ± 0.7</td>
</tr>
<tr>
<td>6h after operation</td>
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<tr>
<td>2h after operation</td>
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<tr>
<td>Posture</td>
<td>distinct from wound pain</td>
<td>1 day post-op, No. (%)</td>
<td>4 (11.8%)</td>
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<td>1 week post-op, No. (%)</td>
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<td>6 (18.8%)</td>
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<td>1 month post-op, No. (%)</td>
<td>0 (0.0%)</td>
<td>2 (6.3%)</td>
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<td>Satisfaction of aesthetic result, No. of patients (%)</td>
<td>32 (94.1%)</td>
<td>27 (79.9%)</td>
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Scientific Session & Postgraduate Course

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S79
Blended Monopolar The Generator Was Set at Higher Watts Power for Both Groups.

Introduction: The use of monopolar "bovie" is common in laparoscopic surgery. The incidence of thermal injury at the umbilical and epigastric incisions was reduced by using the lower voltage blend mode instead of the higher voltage coag mode. Thermal injury was defined as red stains on the skin adjacent to the incisions. In this study, we compared the incidence of thermal injury in patients undergoing elective laparoscopic cholecystectomy at a University hospital. Patients were randomized to have the operation performed with either the higher voltage coag mode or lower voltage blend mode delivered to the monopolar instrument. The generator was set at 30 Watts power for both groups. At the completion of the operation, skin was biopsied from the epigastric and umbilical incisions. The biopsies were examined histologically to determine the presence of thermal injury.

Methods and Procedures: We performed a prospective, blinded randomized controlled trial of patients undergoing elective laparoscopic cholecystectomy at a University hospital. Patients were randomized to have the operation performed with either the higher voltage coag mode or lower voltage blend mode delivered to the monopolar instrument. The generator was set at 30 Watts power for both groups. At the completion of the operation, skin was biopsied from the epigastric and umbilical incisions. The biopsies were examined histologically to determine the presence of thermal injury.

Results: Forty patients were randomized (twenty per group). Blended mode biopsies in each group were compared to the histologic appearance and thermal injury was more frequent in the coag mode group (p<0.001).

Conclusion: The use of monopolar "bovie" is common in laparoscopic surgery. The incidence of thermal injury at the umbilical and epigastric incisions was reduced by using the lower voltage blend mode instead of the higher voltage coag mode. This reduction in thermal injury can decrease the risk of unintentional thermal injury to nearby structures without direct contact by capacitive and antenna coupling. The purpose of this study was to compare histologic evidence of thermal injury at the epigastric and umbilical incisions following laparoscopic cholecystectomy performed using the higher voltage blend mode versus the lower voltage blend mode. We hypothesize that the higher voltage coag mode will create more unintentional thermal tissue injury in comparison to the lower voltage blend mode.

S80
Comprehensive Assessment of Skill-Related Physical and Cognitive Ergonomics Associated with Robotic and Traditional Laparoscopic Surgeries

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S81
Comparative Study Between Laparoscopic, Robotic, and Spider Platforms

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Scientific Session Oral Abstracts

Florida International University Herbert Wertheim College of Medicine

INTRODUCTION: The benefits of Single Incision Cholecystectomy (SIC) include better cosmetics, decreased parietal trauma and possible facilitation of postoperative recovery. Many series have shown the feasibility and safeness of Single Incision Laparoscopic Cholecystectomy (SILC), nevertheless this technique still has limitations, such as lack of triangulation, poor visualization, and instrument collision. Recent two different platforms, Robotic and SPIDER, attempt to ameliorate such problems. The purpose of this study is to compare three different techniques of SIC: Laparoscopic, Robotic and SPIDER, performed by a single surgical practice with three surgeons.

METHODS: We retrospectively collected, under IRB approval, data from our first 166 Single Incision Robotic Cholecystectomy (SIRC) and compared with the data of our first 166 SILC and last 36 SPIDER. All the SILC were performed with 3 trocars placed in one umbilical incision with the gallbladder retraction obtained with a prolene stitch; all the robotic cases were performed using the daVinci® Single Site Surgical System; and all the SPIDER procedures were performed using the SPIDER® Surgical System. There was major selection bias for SILC, no selection bias for SIRC and minor selection bias for SPIDER. Follow up was documented 30 days after surgery.

RESULTS: Each group (SILC, SIRC and SPIDER) included 128 patients (77.1%), 131 (78.6%) and 136 (81.9%) females. Mean age (years) was 45.3 (±13.6), 51.5 (±15.9) and 46.3 (±15.1); Mean BMI (kg/m²) was 29.1 (±5.5), 29.4 (±6.1) and 27.4 (±4.8); and presence of previous abdominal surgeries were documented in 79 (49.6%), 60 (46%) and 62 (45.8%) for SILC, SIRC and SPIDER respectively. Mean Surgical Time (min) was 26.4 (range 17-73), 63.1 (range 33-221) and 52.6 (range 24-121); and total hospital length of stay (days) was 1.3, 1.1 and 1.5 for SILC, SIRC and SPIDER respectively. Complications were seen in 3 (1.8%) SILC, 3 (1.8%) SIRC and 1 (0.6%) SPIDER and conversion to multiport 3 (1.8%) SILC and 3 (1.8%) SPIDER.

CONCLUSIONS: Results of this study demonstrate similar results in most of the parameters measured among the three platforms. SILC appears to be superior in terms of surgical time compared to SIRC and SPIDER, nevertheless selection bias could be the influence. SILS, SIRC and SPIDER are all similar in terms of complication profile. It can be concluded that SILC, SIRC and SPIDER are all feasible and safe alternatives when used for SILC.

So83
LOCATION AND NUMBER OF SUTURES PLACED FOR HIATAL HERNIA REPAIR DURING LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING: DOES IT MATTER?
Christine Ren Fielding, MD, George A Fielding, MD; New York University Medical Center

Introduction: It has been demonstrated in previous literature that simultaneous hiatal hernia repair (HHR) during laparoscopic adjustable gastric banding (LAGB) decreases the rate of reoperation. However, the technical aspects of how the HHR is performed are not standardized. Specifically, the number of sutures and location of suture placement (anterior hiatus, posterior hiatus, or both) can be quite variable. It is currently unknown whether or not such technical details are associated with rates of reoperation for band-related problems.

Methods: A retrospective analysis of prospectively-collected data was performed from a single institution (university hospital setting). The database was collected from 2,301 patients undergoing LAGB with HHR from 7/1/2007 to 12/31/2011. The LAGB was performed with a standard pars flaccida technique. The HHR was performed with simple, interrupted Prolene sutures, with the number and location of suture placement left to the judgment of the surgeon. The independent variables were number of sutures and location of sutures. The data collected included demographics, OR time, length of stay (LOS), follow-up time, postop BMI/WEI at yearly intervals, and rates of readmission and reoperation. Statistical analyses included ANOVA for continuous data and chi-squared tests for categorical data.

Conclusions: Women surgeons are experiencing more discomfort and treatment in their hands than male surgeons, though they report fewer years in surgical practice. Lacking is the anthropometric data required to design ORs and instruments that will meet the needs of all surgeons - a group that includes an increasing proportion of women, who on average are shorter and wear a smaller glove size. Redesign of laparoscopic instrument handles and improvements on table height can be promising solutions to these ergonomic challenges.
and Cox regression tests were used for follow-up data, as well as for reoperation rates, in order to account for differential length of follow-up and confounding variables, respectively.

**Results:** The total number of patients in our database was 2,301. In comparing groups based on number of sutures used, there was no difference in length of follow-up, with 91-97% follow-up at 1 year, and 66-77% at 4 years. The majority of patients had 1 suture (55%, n = 1,282; 2 sutures = 784, 3 sutures = 188, 4+ sutures = 47; range = 1-6). Patients with fewer sutures had shorter OR time (1 suture 45 min. vs. 4+ sutures 56 min., p-value < 0.0001). LOS, 30-day readmission, band-related reoperation, and postop BMI/%EWL were not statistically significant.

Of the original 2,301 patients, location of suture placement was known for 2,246 (98%), and there was no difference in length of follow-up, with 91-93% follow-up at 1 year, and 50-68% at 4 years. The majority of patients had anterior sutures (61%, n = 1,378; posterior = 735, both = 133). OR time was shorter in those with anterior suture (41 min. vs. posterior 56 min. vs. both 59 min., p-value < 0.0001). Patients with posterior suture had a longer LOS (84% 1 day vs. anterior 74% 1 day vs. posterior 74% 1 day, p-value < 0.0001). There was no difference in 30-day readmission, band-related reoperation, and postop BMI/%EWL.

**Conclusions:** Patients with fewer or anterior sutures have shorter OR times. However, 30-day readmission, band-related reoperation, and postop weight loss are not affected by number or location of suture. The technical aspects of HHR do not appear to be associated with readmission or reoperation, and therefore a standardized approach may be unnecessary.

**So84**

**Roux-En-Y Fistuloojejunostomy For Post-Sleeve Gastrectomy Fistula**
Elle K Choulillard, MD, PhD, Jack Biagini, MD, FACS, Nelson Trellas, MD, Mohammad Al Jarallah, MD; PARIS POISSY MEDICAL CENTER

**Introduction:** Fistula is still a concern after Sleeve Gastrectomy (SG) in patients with morbid obesity. Although the risk of fistula is relatively low (< 5%), its treatment is long, non-standardized, and complex. Surgery may be indicated in selected cases. In this study, we present our experience with Roux-en-Y fistuloojejunostomy (RYFJ) in selected patients with fistula after SG.

**Methods and procedures:** Between January 2005 and December 2011, we treated 51 patients with post SG fistula. Sixteen of these had RYFJ.

**Results:** 8 patients were operated laparoscopically and 8 had open surgery. No major operative incident was encountered. Mortality was 0%. No patient was transfused. Operative duration was 160 minutes (120-330 minutes). The healing rate of the fistula was 100%.

The mean postoperative follow-up was 39 months (13-66). The fistuloojejunostomy remained patent in all but one patient upon endoscopy. Ten patients had chronic diarrhea (62.5%). Six patients (37.5%) suffered from chronic pancreatitic insufficiency. All patients needed vitamin and oligoelements medication. Adequate weight loss and comorbidity remission was achieved in all patients.

**Conclusions:** RYFJ for post SG fistula is a feasible and sure option. The metabolic outcome of this procedure is ill-known.

**So85**

**REVISIONAL WEIGHT LOSS SURGERY AFTER FAILED LAPAROSCOPIC GASTRIC BANDING: AN INSTITUTIONAL EXPERIENCE**
Tung T Tran, MD, MSc, Vinay Singhal, MD, Ryan Juza, MD, Eric Faust, MD, Jerome Lyn-Sue, MD, Randy Flatley, MD, Ann Rogers, MD, Penn State Milton S. Hershey Medical Center

**INTRODUCTION:** Increasing experience with laparoscopic adjustable gastric bands (LAGB) has demonstrated a high rate of complications and inadequate weight loss. Laparoscopic Roux-en-Y gastric bypass (RYGB) and laparoscopic sleeve gastrectomy (LSG) have been reported to be safe and effective in selected patients. The purpose of our study was to evaluate the incidence and outcomes of revisional weight loss surgery after laparoscopic gastric banding at our institution.

**METHODS:** From June 2006 to August 2012, all patients undergoing LAGB and those requiring revision were retrospectively analyzed. All procedures were performed by two surgeons with extensive experience in bariatric surgery. Parametric data are presented as mean ± SD, nonparametric data are presented as median and interquartile range [IQR].

**RESULTS:** During the study period, 253 patients underwent LAGB. 101 patients (40%) required reoperation. 55 patients (51 women, mean age 46±12) with a median BMI of 42 [39-45] successfully underwent operative weight loss surgery (48 RYGB, 7 LSG). Indications for surgery included dysphagia in 34 patients (62%), inadequate weight loss in 16 patients (29%), symptomatic reflux in 2 patients (4%), gastric prolapse in 2 patients (4%) and needle phobia in 1 patient (2%). 2 of the 55 patients required conversion to an open RYGB due to excessive adhesions. Revisional surgery was undertaken approximately 32±13 months after LAGB. A staged removal of gastric band and revisional weight loss procedure was performed in 15 patients with a median interval of 2.5 [1-7] months between procedures. Median operative time was 160 [142-183] min. Median hospital length of stay was 2 [1-3] days. Early complications occurred in 9 patients (16%) including 2 anastomotic leaks. 12 patients (22%) presented with late complications requiring intervention. There was one death. At a median follow up of 7 months, excess body weight loss was 42 ± 24% and 49% of patients achieved a BMI of less than 33.

**CONCLUSION:** LAGB is associated with a high incidence of reoperation. Reoperative weight loss surgery can be performed in selected patients with a higher rate of complications than primary surgery. Good short term weight loss outcomes can be achieved.
patients with class III and class V obesity was not statistically significant.

On average, men presented with 4.54 serious comorbidities and 3.70 "complicated" comorbidities, while women presented with 4.15 serious comorbidities and 3.08 "complicated" comorbidities. More men presented with DM (35.4% vs 29.0%, p<0.05), HTN (68.8% vs 55.3%, p<0.0001), OSA (71.9% vs 45.7%, p<0.0001) and MetS (20.9% vs 15.1%, p<0.0001). Men also presented with more "complicated" DM (32.4% vs 23.9%, p<0.05), HTN (58.5% vs 44.5%, p<0.0001), BP (21.6% vs 18.9%, p<0.05), OSA (56.5% vs 30.0%, p<0.001) and MetS (17.8% vs 10%, p<0.001).

More women presented with GERD (52.7% vs 41.5%, p<0.01), "complicated" GERD (26.6% vs 18.2%, p<0.01) and "complicated" depression (37.4% vs 28.9%, p<0.01).

**Conclusion:** Although men typically comprise less than 20% of bariatric surgery patients, they have more to gain from these operations. Men present later in life, with more advanced obesity, and with more "complicated" comorbidities definitively. Most notably, they have a significantly higher incidence of metabolic syndrome and are, thus, predisposed to cardiovascular disease. Such findings mandate more research and resources to investigate this barrier to treatment and to provide the morbidly obese male with the surgical care he clearly needs.

**So87**

**Laparoscopic greater curvature plication for morbidly obese patients: Early experience of Alexandria University**

Mohamed Sharaan, MD, Khaled Katry, MD, Tamer Abdelbaki, MS; Faculty of Medicine, University of Alexandria

**Background:** Laparoscopic greater curvature plication of the stomach is a new bariatric procedure considered as a One new restrictive technique for morbidly obese patients. It offers a way to reduce incidence of gastric leakage of that of sleeve gastrectomy and also reduce risk of gastric erosion produced by laparoscopic adjustable gastric banding. The aim of this study was to assess this bariatric procedure as an alternative bariatric procedure for morbidly obese patient to loose weight. We included in this study 52 morbidly obese patients, all of them were fit for surgery and with no history of previous upper abdominal surgery, and with BMI above 35 kg/ m2. We performed laparoscopic greater curvature plication using two layers, first one interrupted eithenboid 2/0 and second one continuous prolene 2/0 starting from the fuds till the level of the crow foot of the stomach. Mean BMI was 44.5 (36 to 49). Mean age was 38 years. We had 35 female and 17 male. Mean operative time was 122.6 minutes ( 100 to 188 minutes), and mean hospital stay was 1.5 days. No intraoperative complications, we had no leakage, we had two case of persistent postoperative vomiting due to obstructive gastric outlet cause of narrow puch, one was treated just by upper endoscopy and dilatation and the other by removal of sutures near the outlet. The mean percentage of excess weight loss was 25% after 3 months and 38% after 6 months and 47% after 12 months postoperative. Conclusion: the laparoscopic greater curvature plication of the stomach is a feasible and safe procedure for morbidly obese patients with low morbidity and reversible in case of obstructive symptoms. More comparative randomized controlled trials are needed to justify more on its benefits for weights loss maintenance and morbidity.

**So88**

**GASTRIC BAND EROSION: DIAGNOSTIC AND TREATMENT ALTERNATIVES**

Rodrigo Gonzalez, MD, Edwin Bran, MD, Fernando Montufar, MD; Las Americas Private Hospital

**BACKGROUND:** Band erosion is a known complication following gastric banding and physicians are increasingly being exposed with this problem. The presentation can sometimes be subtle, making it difficult to diagnose even for physicians with ample experienced in bariatric surgery. Therefore, it is important to determine the most common signs or symptoms that are present in order to diagnose this complication. Besides endoscopy, other less expensive and less invasive methods might be useful in its diagnosis. Treatment is not always possible through endoscopy and surgical approach is not always straightforward. Our aim is to review the presentation and the different alternatives for diagnosis and treatment of intragastric band erosion.

**METHODS:** We reviewed prospectively collected data of 916 patients undergoing gastric banding since the year 2000. Data from patients developing gastric band erosion at our institute, including clinical presentation, diagnostic methods and treatment alternatives were assessed. All patients with band erosion underwent band removal through endoscopy when the buckle of the band was inside the stomach. Otherwise patients underwent laparoscopic division and removal of the band. In cases with abundant intraabdominal adhesions hindering the safe access to the band, a gastroscopy in the anterior gastric wall and intragastric division and removal of the band was performed. Data were evaluated using Student’s t-test and are reported as mean±/SD. A p<0.05 was considered statistically significant.

**RESULTS:** Twenty-four (2.6%) patients developed gastric band erosion at 49+/-23 months follow-up. Average age was 42+/-11 years and 14 (58%) were male. BMI decreased from 44+/-7 to 30+/-5 kg/m2 (p<0.0001), from 42+/-11 to 30+/-5 kg/m2 (p<0.001), from 41.5% to 32.4% (p<0.0001) of previous upper abdominal surgery, and with BMI above 30.0% (p<0.001) and MetS (17.8% vs 10%, p<0.001). Biopsy revealed band erosion at 49+/-23 months follow-up. Conclusion: Laparoscopic division and removal of the band is not possible, the intragastric removal of the band can be used to diagnose this problem. In our series, the buckle of the band was inside the stomach. Otherwise patients underwent laparoscopic division and removal of the band. In cases with abundant intraabdominal adhesions hindering the safe access to the band, a gastroscopy in the anterior gastric wall and intragastric division and removal of the band was performed. Data were evaluated using Student’s t-test and are reported as mean±/SD. A p<0.05 was considered statistically significant.

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intermediate care, home health and another type of facility.

RESULTS: A weighted total of 221,294 adult patients underwent colectomy in 2009 and had the primary outcome of discharge at a facility. Of these colon resections, 70,361 (32%) were performed laparoscopically and 150,933 (68%) by open technique. 139,047 (62.8%) patients had routine discharge and 73,572 (33.3%) non-routine. 8,445 (3.8%) patients died while in the hospital, and 229 (0.1%) left against medical advice and were excluded from further analysis. On univariate analysis, age > 65 years, female gender, open technique (compared to laparoscopic), Medicare/Medicaid insurance status, co-morbidity index of one or more, and diagnosis (like hemorrhage, malignancy or inflammatory bowel disease) predicted non-routine discharge. A multivariate logistic model was then used to predict non-routine discharge in these patients using variables significant in the univariate analysis at the alpha=0.05 significance level. In the multivariate analysis, open compared to laparoscopic technique was independently associated with increased likelihood of discharge to skilled care facilities (odds ratio, 2.85; 95% CI, 2.59-3.14).

CONCLUSIONS: In addition to the expected factors like advancing age, female gender and increasing comorbidity index, open compared to laparoscopic technique for colectomy is associated with the increased risk of discharge to skilled care facilities. When feasible, laparoscopic technique should be considered as an option especially in the elderly patients who require colon resection as it may reduce their risk of discharge to skilled care facility.

Sogo

PATIENT CENTERED OUTCOMES FOLLOWING LAPAROSCOPIC COLORECTAL SURGERY

Matthew Zafpi, BA, Woody Denham, MD, Ermilo Barrera, MD, Zeeshan Butt, PhD, John Linn, MD, JoAnn Carbray, RN, Hongyan Du, MS, Michael Ujiki, MD, NorthShore University HealthSystem, University of Chicago Fischitzker School of Medicine, Northwestern University Feinberg School of Medicine.

INTRODUCTION - Laparoscopic colectomy is the second most common general surgical operation performed in the United States, yet little has been reported on patient centered outcomes during the long-term post-operative course. This study aimed to describe long-term quality of life outcomes in a cohort of these patients.

METHODS AND PROCEDURES - We prospectively followed 100 patients for two years after laparoscopic colectomy as part of an Institutional Review Board-approved, multi-hospital, multi-surgeon study. The Surgical Outcome Management System (SOMS) was used to quantify pain, bowel dysfunction, fatigue, cosmesis, physical function and overall satisfaction. SOMS scales were administered pre-operatively, at 24 hours, 72 hours, 1 week, 3 weeks, 6 months, 1 year and 2 years post-operatively. Patients were seen in clinic with physical exam up to two years post-op. A mixed-effect regression model was constructed with unspecified variance-covariance structure. Pair-wise comparisons were made between time points, and p-values were Bonferroni adjusted.

RESULTS - Maximum pain was reported 24 hours after surgery (19.7 ± 6.8), and decreased at each time point up to and including 3 weeks (All P<0.01). At 1 week post-op, patients reported equivalent pain to pre-op (11.6 ± 5.4 V 12.6 ± 4.4 P=0.37), and at 3 weeks (7.9 ± 3.2) they had significantly less pain than at pre-op (P<0.01). Bowel function worsened from pre-op to 1 week post-op (12.6 ± 4.4 V 14.8 ± 3.9 P=0.03), improved at week 3 (11.1 ± 3.4 P<0.01), and then remained constant at 6 months, (11.6 ± 4.2) and 1 year (11.5 ± 4.0). Physical function worsened from pre-op (31.6 ± 6.2) to 1 week post-op (27.3 ± 5.4 P<0.01), but then surpassed pre-op levels during week 3 (33.6 ± 3.2 P=0.025), and was equivalent for the rest of the 2 year post-op course. Subjects reported returning to the activities of daily living after 6.2 ± 4.4 days and work after 11.1 ± 9.1 days. Patient-perceived cosmesis improved from post-op week 3 (5.2 ± 1.8) to 6 months (4.7 ± 1.5 P=0.026) when 72% reported that the procedure had no effect on cosmesis, and then remained unchanged through 2 years. Fatigue increased from pre-op (15.9 ± 6.1) to week 1 (20.8 ± 6.3 P<0.001) before improving (13.8 ± 5.2 P=0.025) at week 3, where it remained equivalent for 2 years. Satisfaction with the procedure was high, averaging 9.44 out of a max score of 11, and was equivalent across post-op week 3, 6 months, 1 year and 2 years.

CONCLUSIONS - Physical function, pain, fatigue and bowel function surpassed pre-operative levels by week three. Satisfaction with the procedure and cosmesis were high throughout and maximum cosmesis was achieved by 6 months post-op.

Sogi

GRAVITY LINE STRATEGY CAN REDUCE RISK OF INTRAOPERATIVE INJURY DURING LAPAROSCOPIC SURGERY

Anlong Zhu, PhD, Yanwei Xing, MS, Daxun Fiao, PhD, Tao Jiang, MD, Hongchi Jiang, Prof; general surgery, 1st Affiliated Hospital of Harbin Medical University.

Background: Intraoperative injuries are the most common cause of morbidity and mortality after laparoscopic surgery. It is accepted that most injuries are the result of misidentification of anatomical structures, which may be due to the new visual pattern different from open surgery and the lack of experience in laparoscopic surgery, especially for surgeons with insufficient training. It is of great importance to build a correct concept for the perception and judgment of a relative position of visual field during the laparoscopic surgery. With the concept, camera drivers and beginner surgeons would get a better learning curve and a low risk of intraoperative injuries during the later operations. In this study, we aimed to find new causes of complications related to the view shown on the monitor in laparoscopic operations and solution of safe laparoscopic procedure especially for inexperienced surgeons.

Method: A series of 425 consecutive patients from September 2006 to January 2012 who received laparoscopic LAR and APR for rectal cancer in our center were included. Among these patients, 398 medical videos of laparoscopic surgery were reviewed. We established a method to measure rotation angle of the operating field on the monitor. The pictures at the time of injury creation in each video were reviewed and rotation angles were measured. The deviation of rotation to the reference line based on several anatomic landmarks. Statistical analysis was performed using chi-square, Fisher's exact, and Mann-Whitney U tests, where appropriate.

Results: 398 medical videos of 425 patients for sigmoid colon and rectal disease were reviewed. The incidence of complications was 8.3% including ureter injury, bladder injury, vagina injury and hemorrhage. Rotation of the operation views, which were found at different degrees (as ≤15º, 15–30º and >30º), shown on monitor was found in a relative high rate of the medical videos (31.4%), more frequently occurred in the first 100 cases. Compared with Uncomplication Group(UG), rotation angles in Complication Group(CG) were found in all operations (UG/CG: 100%/25.7%). In most injury cases (UG/CG: 91.9%/64.4%) the rotation angles were >15º (P<0.001), and in other cases (UG/CG: 9.1%/93.1%) <15º (P<0.001).

We also noted that there was a high incidence of intraoperative complication (72.7%) and rotation angle >15º (26%) in the first 100 cases and a steady low rate (complication:6.1–15.2%,rotation angle >15º: 0–9.1%) in the second 100, third 100 and last 93 cases.

Conclusion: Rotation of the camera is not uncommon during laparoscopic procedures. Inexperienced camera drivers and surgeons often make such a mistake because of their ignorance and lose the critical vision of parts during laparoscopic procedures. Inexperienced surgeons often make such a mistake because of their ignorance and lose the critical vision of parts during laparoscopic procedures.
during laparoscopic procedures. We propose the “Gravity Line Strategy” principle as a basic operating criterion for laparoscopic operations. It is especially important for the inexperienced camera drivers and beginner surgeons.

**S092**

**LAPAROSCOPIC SPLENECTOMY: A SURGEON’S EXPERIENCE OF 302 PATIENTS WITH ANALYSIS OF POSTOPERATIVE COMPlications**

Chengdu, China

Wang, MD, Zhengguo Yang, MD, Bing Peng, MD, PhD, Shuangchen Ke; West China Hospital, Sichuan University, Chengdu, China

**Instruction:** The aim of this study was to evaluate the operative and clinical outcome in a series of 302 consecutive laparoscopic splenectomies and to analyze the risk factors of postoperative complications.

**Methods and Procedures:** We retrospectively reviewed 302 consecutive patients who underwent laparoscopic splenectomy by a single surgeon between 2003 and 2012. The patients were classified into three groups according to clinical diagnosis: benign spleen-related disease (Group 1, n=196), malignant spleen-related disease (Group 2, n=42) and splenomegaly secondary to portal hypertension (Group 3, n=64). Hand-assisted technique was selectively applied in a number of patients with supramassive splenomegaly (spleen size>22cm) and patients with splenomegaly secondary to portal hypertension at the discretion of the surgeon. Comparisons were conducted among the three groups in terms of perioperative data. Postoperative complications were classified into three groups according to the Clavien-Dindo Classification of Surgical Complications and our previous experience: no complications, mild complications (grade I and grade II in Clavien-Dindo classification) and severe complications (grade III and above in Clavien-Dindo classification). Multivariate logistic regression was used to analyze the independent risk factors of postoperative complications. Other statistical methods applied in our study included Analysis of Variance, Chi-square test and Fisher’s exact test.

**Results:** In these comparisons among the three groups, patients in Group 1 were younger and had higher BMI, lower ASA score and smaller spleen than the other two groups with statistical significance. There were fewer patients in Group 1 requiring hand-port than the other two groups: 5 out of 196 patients in Group 1; 20 out of 42 patients in Group 2; 25 out of 64 patients in Group 3. Group 1 had significantly lower operative times (117±52 vs 142±59, 181±58), required fewer transfusions (5.1% vs 19%, 23%), had lower incidence of complications (15% vs 38%, 39%) and shorter postoperative stays (7.2±2.8 vs 10.2±5.6, 8.4±2.9) than Group 2 and Group 3. Compared to Group 1, Group 3 had significantly more blood loss (196±272 vs 93±103) during the surgery. In the analysis of complications, high ASA score was an independent risk factor for occurrence of complications. Both high ASA score and larger spleen size were independent risk factors for occurrence of severe complications. Compared with total laparoscopic splenectomy, data including the hand-assisted technique showed a reduction in OR (odds ratio) of both occurrence of complications and occurrence of severe complications. In patients who underwent total laparoscopic splenectomy (n=252), patients with supramassive splenomegaly were 22 times (OR) more likely to suffer from severe complications than patients with normal spleen size (<15cm). However, with the help of hand-assisted technique (n=302), the OR (supramassive splenomegaly/normal spleen) decreased to 6.7±3.

**Conclusions:** Although the treatment of malignant spleen-related disease and portal hypertension with laparoscopic splenectomy is more challenging than for benign disease, it is still safe and effective for these patients. High ASA scores is an independent risk factor for occurrence of complications while high ASA scores and larger spleen size are both independent risk factors for occurrence of severe complications. The appropriate introduction of hand-assisted technique may facilitate the laparoscopic procedure and reduce postoperative complications.

**S093**

**LONG-TERM SUBJECTIVE OUTCOMES OF REINTERVENTION FOR FAILED FUNDOPLICATION: REDO FUNDOPLICATION VERSUS ROUX-EN-Y RECONSTRUCTION**

Se Ryung Yemamoto, MD; Department of Surgery, Creighton University Medical Center, Omaha, NE, USA

**Background:** Redo fundoplication (Redo) is the mainstay of treatment for failed previous fundoplication, but is not always feasible. A subset of patients require Roux-en-Y reconstruction (RNY) for symptom relief. The aim of the study was to assess the long term subjective outcomes between Redo and RNY in patients with failed fundoplication.

**Methods:** In this retrospective review of prospectively maintained database, we identified 119 consecutive patients with Redo fundoplication (mean 54.1 years, 78 women) and 64 patients with RNY (mean 54.8 years, 35 women) between December 2003 and September 2009. Data variables analyzed were, patients’ characteristics, esophageal manometry, 24h pH study, type of procedure, peri-operative findings, complications, pre and post symptom (heartburn, regurgitation, dysphagia and chest pain) scores (scale 0-3), and patients’ satisfaction score (scale 1-10). Patients with grade 2 and 3 were considered to have severe symptoms. In addition, the use of proton pump inhibitors (PPI) and histamine 2 (H2) receptor antagonists were analyzed.

**Results:** There were significant differences noted in BMI (29.6 vs 31.5 kg/m2, p=0.023), pre op BMI > 35 kg/m2 (16/119 vs 17/64, p=0.028), operative time (190 vs 240 min, p<0.001), estimated blood loss (100 vs 200 ml, p=0.001), length of hospital stay (3 vs 6 days, p<0.001) between Redo and RNY groups respectively. Of the 182 patients, long term (>3 years) follow up is available in 108 (78 redo and 30 RNY) patients. Both procedure showed significant improvement in symptom scores after the procedure. There was no significant difference in patient’s satisfaction between Redo and RNY groups. In the subset analysis, patients with BMI>35 kg/m2 have better satisfaction with RNY compared to Redo (p=0.044).

**Conclusions:** Redo fundoplication in patients with previously failed intervention is associated with satisfactory long term outcomes. However, Roux-en-Y reconstruction is a useful surgical option for patients with failed previous antireflux surgery and especially, patients with BMI> 35 kg/m2 should be considered for Roux en Y reconstruction.

**S094**

**ACS NSQIP ANALYSIS: RISK FACTORS FOR COMPLICATIONS AFTER LAPAROSCOPIC AND OPEN ANTIREFLUX SURGERY.**

Subhash Reddy, MD, Jonathan Grotts, MA, David Thoman, MD; Santa Barbara Cottage Hospital

**Background:** Antireflux surgery and paraesophageal hernia repair are increasingly done in the elderly and those with multiple comorbidities. We sought to identify risk factors for adverse postoperative events after open or laparoscopic fundoplication by querying a large national database.

**Methods:** Under the data use agreement for the American College of Surgeons National Surgical Quality Improvement Program (NSQIP) Program Public Use File, and with the institutional review board approval, we reviewed perioperative variables of patients who underwent fundoplication with or without paraesophageal hernia repair from 2006 to 2010. Patients who underwent a revision of a previous fundoplication or fundoplication for Heller myotomy as the principal procedure were excluded. The primary endpoint was mortality and secondary endpoints included post-operative adverse events. A multivariate model was used to control for pre-operative morbidity, age and BMI. Odds ratio, Chi square, logistic regression were performed using SPSS 2011.

**Results:** Of 6,667 fundoplications analyzed, 5,571 (83.5%) were laparoscopic fundoplications and 1,196 paraesophageal
hernia repairs. Overall, patients who had an open approach had more comorbidities than laparoscopic group. Using multivariate logistic regression preoperative variables like Age > 70, and sepsis were independently associated with mortality, respiratory, urinary complications and transfusion requirements (P< 0.05), BMI >30 and steroids (P<0.05) were associated with wound infections. Laparoscopic procedure (P<0.05) showed protective effect for all post operative complications. Respiratory and cardiac comorbidities were not independently associated with postoperative adverse events (P> 0.05). Demographics and adverse events are summarized in the attached table.

Demographics and Adverse events with P value

<table>
<thead>
<tr>
<th>Variables</th>
<th>Open (n=1996)</th>
<th>Laparoscopic (n=5571)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>62.7 years</td>
<td>55.4 years</td>
<td>0.001</td>
</tr>
<tr>
<td>Male</td>
<td>410(21.7%)</td>
<td>1999(35.8%)</td>
<td>0.29</td>
</tr>
<tr>
<td>Mean BMI</td>
<td>29.1</td>
<td>29.7</td>
<td>0.001</td>
</tr>
<tr>
<td>Mean Operation Time</td>
<td>96 minutes</td>
<td>75 minutes</td>
<td>0.001</td>
</tr>
<tr>
<td>Total Length of Stay</td>
<td>5 days</td>
<td>2 days</td>
<td>0.001</td>
</tr>
<tr>
<td>Wound Class- Contaminated</td>
<td>34(3.1%)</td>
<td>61(1.1%)</td>
<td>0.001</td>
</tr>
<tr>
<td>Postoperative Wound Infection</td>
<td>86(7.8%)</td>
<td>5491%</td>
<td>0.001</td>
</tr>
<tr>
<td>Postoperative Respiratory events</td>
<td>69(6.4%)</td>
<td>75(1.3%)</td>
<td>0.001</td>
</tr>
<tr>
<td>Postoperative Cardiac events</td>
<td>3</td>
<td>7</td>
<td>0.3</td>
</tr>
<tr>
<td>Return to OR in 30 days</td>
<td>52(4.7%)</td>
<td>91(1.6%)</td>
<td>0.001</td>
</tr>
<tr>
<td>Blood Requiring Transfusions</td>
<td>21(1.9%)</td>
<td>25(0.4%)</td>
<td>0.001</td>
</tr>
<tr>
<td>Mortality</td>
<td>21(1.9%)</td>
<td>17(0.3%)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Conclusion: Patients undergoing open fundoplication are of a higher acuity than patients undergoing laparoscopy. After controlling for risk factors, an open procedure does not result in higher mortality, but is associated with significantly increased morbidity.

S095

Should routine UGI after bypass be standard of care?

Gregory J. Coffman, MD, MS; Ochsner Clinic Foundation

Because of the risk of significant morbidity and mortality in bariatric patients routine upper GI (UGI) is used postoperatively for early identification of complications such as gastro-jejunal leak. Our program, as well as many others, has adopted routine use of post operative day one UGI. There is controversy in the literature regarding the sensitivity of UGI versus clinical signs for timely and accurately identification of complications. The purpose of this study is to determine the necessity of UGI studies after gastric bypass surgery.

METHOD AND MATERIALS: This was a retrospective study using a prospectively gathered patient database. Inclusion criteria were patients who had an open or laparoscopic roux-en-y gastric bypass at Ochsner Clinic Foundation. Primary outcome variables were anastomotic leak, delayed gastric emptying, gastric outlet obstruction or fistula formation, either by radiographic analysis or operative exploration. Secondary outcome variables were any of the clinical signs of postoperative complications: nausea, emesis, temperature greater than 101, heart rate greater than 120, WBC >12,000.

RESULTS: Nine-hundred fifty-six patients met inclusion criteria. Eleven patients had delayed gastric emptying, five gastric outlet obstruction and three leaks were identified by UGI. None of these patients required operative intervention. There was one negative UGI where leak was identified by CT 21 days later and reoperation was performed. There were no other false negatives. For every abnormal UGI there was at least one clinical sign. There were no deaths in this series

CONCLUSION: This large study failed to demonstrate the need for the routine use of post operative UGI. There is a false negative rate with UGI for leak and clinical patients should be evaluated properly. Larger studies will have to be performed to confirm our findings.

S096

LAPAROSCOPIC APPROACH TO REPAIR TRAUMATIC DIAPHRAGMATIC INJURIES: A NATIONAL TRAUMA DATABASE COMPARISON

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INTRODUCTION – Traumatic diaphragmatic Injury (TDI) usually occurs secondary to multiple trauma. Prompt diagnosis and repair of those injuries is important. Multiple approaches to repairing the diaphragmatic hernia have been described in the literature. The goal of this study is to compare the laparoscopic versus other non-laparoscopic approaches to TDI repair.

METHODS AND PROCEDURES – Retrospective review of all trauma patients undergoing laparoscopic or open abdominal diaphragmatic hernia repair from the National Trauma Database for the admission years 2009 and 2010. Patient demographics, number of hours to procedure, type of trauma center, and mechanism of injury were observed. Hemodynamic characteristics were evaluated by Injury Severity Score ISS, systolic blood pressure, pulse, respiratory rate, percent oxygen saturation, and Glasgow Coma Scale in the emergency department. Resource utilization was evaluated by examining the number of patients transferred to the Intensive Care Unit (ICU), patients transferred to the operating room (OR transfers), hospital length of stay (LOS), intensive care unit LOS, number of ventilator days, and hospital disposition comparison. Outcomes were measured by reviewing the mortality rate and major complication rates in both approaches. Levene’s test and Student’s t-test were used for statistical analysis.

RESULTS – There were 138 cases of TDI repair included in the study period (27 laparoscopic and 111 labeled open or other repairs). The male to female ratio was 1.7:1 in the laparoscopic approach group, and 3:1 in the open approach (P-value= 0.028). The average age was 43 and 42 respectively (P-value= 0.005) and the number of hours to procedure was 110 and 84 respectively (P value = 0.612). Level I trauma centers performed 725.9% laparoscopic repairs, and 49 (44.1%) utilizing a non-laparoscopic approach (P-value=0.000), while Level II trauma centers performed 12 (44.4%) and 27 (24.3%) respectively (P-value=0.004). On the other hand, community centers performed 17(65.3%) laparoscopic repairs, and 44(39.6%) non-laparoscopic repairs (P-value=0.029), while university trauma centers performed 9 (33.3%) and 58 (23.0%) (P-value=0.001), and non-teaching trauma centers performed 1 (3.7%) and 9 (8.1%) repairs respectively (P-value=0.432). The remaining data is summarized in the tables below.

CONCLUSION – The male to female ratio for patients undergoing laparoscopic repair is lower indicating a trend to utilize laparoscopy more frequently on females. Patients undergoing laparoscopic repair are younger. Level II trauma centers and community trauma centers are performing more laparoscopic repairs compared to level I and University centers respectively. Patients undergoing laparoscopic repairs have a lower GCS and ISS and their average length of stay is 1 day longer. There was a higher incidence pulmonary embolism in the laparoscopic group. This brief retrospective study would indicate that the laparoscopic approach is a relatively safe and viable technique. However, prospective studies are needed to appropriately evaluate the safety of this approach in the trauma population.
LAPAROSCOPIC ADHESIOLYSIS IN SMALL BOWEL OBSTRUCTION REDUCES 30-DAY COMPLICATIONS AND LENGTH OF STAY

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INTRODUCTION: Small bowel obstruction (SBO) requiring adhesiolysis is a frequent and costly problem in the United States accounting for approximately 118 hospitalizations per 100,000 patients in 2005 and expenditures exceeding 1.4 billion dollars. There is limited high quality evidence available regarding the most effective and safest surgical management strategies. This study examines the differences in 30-day surgical outcomes between patients treated with laparoscopy for SBO and their counterparts undergoing open procedures.

METHODS AND PROCEDURES: Patients with a discharge diagnosis of adhesive SBO (ICD-9 560.81) were selected from the ACS National Surgical Quality Improvement Program (NSQIP) database from 2005-2010. Cases were classified as either laparoscopic or open adhesiolysis groups, with or without small bowel resection using Common Procedure Terminology (CPT) codes. Chi-square and Student's t-test were used to compare patient and surgical characteristics with 30-day outcomes including major complications, incisional complications, and mortality. Factors with a p<0.1 were included in the multivariate logistic regression for each outcome. A propensity score analysis for probability of being a laparoscopic case was performed, but did not significantly affect results. A two sided p-value <0.05 was considered significant.

RESULTS: Of the 9,619 SBO included in the analysis, 14.9% adhesiolysis procedures were performed laparoscopically. Patients undergoing laparoscopic procedures had shorter mean operative times (77.2 vs. 94.2 minutes, p<0.001) and decreased post-operative length of stay (4.7 vs. 9.9 days, p<0.001). After controlling for comorbidities and surgical factors, patients having open adhesiolysis were more likely to develop major complications (OR=1.57, CI: 1.29-1.90, p<0.001) and incisional complications (OR=4.62, CI: 3.10-6.90, p<0.001). The 30-day mortality was 4.7% in the open group versus 1.3% in the laparoscopic group (OR=2.08, CI: 1.26-3.44, p=0.004). In patients requiring small bowel resection in addition to adhesiolysis the laparoscopic rate fell to 4.3% of cases. There were more major complications (OR=2.63, CI: 1.46-4.73, p=0.001) and incisional complications (OR=2.29, CI: 1.18-4.45, p=0.014) in the resection group for open compared to laparoscopic procedures. Mean operative times in the resection plus adhesiolysis group did not significantly differ between open and laparoscopic cases (127.7 vs. 116 minutes, p=0.119); however, post-operative length of stay remained significantly shorter in the laparoscopic cases (11.6 vs. 7.8 days, p<0.001).

CONCLUSIONS: Laparoscopic adhesiolysis requires a specific skill set and experience and may not be appropriate in all patients. Notwithstanding this, the laparoscopic approach demonstrates a benefit in length of stay, mean operative time, and 30-day morbidity and mortality even after controlling for preoperative patient characteristics. Given these findings in over 9,000 cases and consistent rates of SBO requiring surgical intervention in the United States, increasing the use of laparoscopy could be a feasible way of improving patient outcomes and decreasing attendant costs.


S098 IMPACT OF OPERATIVE DURATION ON POSTOPERATIVE PULMONARY COMPLICATIONS IN LAPAROSCOPIC VS OPEN COLECTOMY

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INTRODUCTION: Prolonged operative duration is associated with increased postoperative morbidity and mortality. Although laparoscopic colectomy (LC) is commonly associated with longer operative duration when compared to open colectomy (OC), research shows paradoxically decreased morbidity following LC vs. OC. The direct impact of operative duration on postoperative pulmonary complications (PPC) following LC vs. OC has not been analyzed.

METHODS: We queried the ACS/NSQIP 2009-2010 Public Use File for patients who underwent elective LC and OC. The associations between operative duration and a PPC (pneumonia, intubation >48 hours, and unplanned intubation) as well as 30-day mortality were evaluated. Multivariable regression models were created to determine the independent effect of operative time on the development of PPC while controlling for LC vs. OC.

RESULTS: 25,419 colectomies (13,741 laparoscopic and 11,678 open) were reviewed. 76% (3.0%) patients experienced at least one PPC. Regression modeling demonstrated that for both LC and OC, each 60-minute increase in operative time up to 480 minutes was associated with 13% increased odds of PPC (OR 1.13; 95% CI 1.07-1.19). Beyond 480 minutes, each additional 60-minute interval was associated with 33% increased risk of PPC (OR 1.33; 95% CI 1.29-1.38). Overall, PPCs occurred half as often following an LC (270 [2.0%] laparoscopic vs. 497 [4.3%] open; OR 0.45; 95% CI 0.39-0.53).

Figure: Predicted and Actual Rate of Postoperative Pulmonary Complication in Lap vs. Open Colectomy

Predicted vs. Actual PPC Rate

Conclusions: Operative duration is independently associated with increased risk of PPC in patients undergoing LC and OC. However, a laparoscopic approach carries half the absolute risk of PPC and, when safe, should be preferentially utilized despite a potential for prolonged operative duration.
Background: Laparoscopic cholecystectomy (LC) combined with intraoperative endoscopic sphincterotomy (IOES) was prospectively and randomly compared with laparoscopic common bile duct exploration (LCBDE) in an attempt to find the best single-session minimally invasive treatment for cholecystocholedocholithiasis.

Methods: Between March 2008 and April 2012, patients with gallstones (GS) and common bile duct (CBD) stones diagnosed by preoperative ultrasonography and magnetic resonance cholangiopancreatography (MRCP) were divided at random into LCBDE group and LC-IOES group. The surgical success rates, surgical times, postoperative complications, retained common bile duct stones, and postoperative lengths of stay were compared prospectively.

Results: Out of 365 patients with suspected CBD stones 274 patients fulfilled the inclusion criteria and were analyzed. They were randomized into LCBDE (n=138) and LC-IOES (n=136). There were no differences between the two groups in terms of surgical time, surgical success rate, and postoperative length of stay. Pancreatitis and bleeding sphincterotomy were significantly more in LC-IOES group, while bile leakage and retained CBD stones were significantly more in LCBDE group.

Conclusion: Both LC-IOES and LC-LCBDE were shown to be safe, effective, minimally invasive treatments for cholecystocholedocholithiasis but the former option may be preferred when facilities and experience for endoscopic therapy do exist.

GLUCOSE AND INSULIN RESPONSE TO GTT: A PROSPECTIVE COMPARISON BETWEEN ROUX EN Y GASTRIC BYPASS, VERTICAL SLEEVE GASTRECTOMY AND DUODENAL SWITCH AT 1 YEAR

Background: Long term glucose and insulin homeostasis after bariatric surgery is still poorly understood. Reactive hypoglycemia after Gastric Bypass has been characterized by others and is thought as having strong hyperinsulinemic component which may contribute to weight regain thru food seeking behaviors. This prospective, non randomized IRB approved study is designed to assess the impact of 3 common stapling procedures (RYGB, VSG, DS) on glucose and insulin as measured by liquid and solid Glucose Tolerance Testing at 6, 9, and 12 months post operatively. The 9 month testing was performed with a solid liquid and solid challenges were not statistically different.

Methods: All patients enrolled had a Oral Glucose Tolerance Test (OGTT) as well as fasting glucose, insulin, HbA1c, c Peptide levels pre-operatively and at 6, 9, and 12 months post-operatively. The 9 month testing was performed with a solid meal. Ratios of Glucose and Insulin at 1hr/2hr and fasting/1hr were calculated. Statistical Analysis was performed with ANOVA and students paired t test.

Results: All groups were similar at baseline other than the DS group having a higher BMI. The results of GTT between liquid and solid challenges were not statistically different. All operations resulted in significant weight loss, reduction of fasting glucose, and improved insulin sensitivity. The rates of increase and the peak glucose and insulin levels after GTT were greatest in RYGB patients. The 1hr insulin level was higher than the pre-operative in this group. This was accompanied by a faster decline in glucose at 2 hrs. In comparison, the DS patients had a slower and lower total rise in glucose and insulin and the lowest HbA1c levels (p<0.05). The VSG patients had results that were in between RYG and DS, but were significantly different from RYG as well.

Conclusions: The RYGB has a significantly dysfunctional insulin response to OGTT and creates hypoglycemia as a result. The VSG and DS rate as a more physiologic insulin response to OGTT without the supra-normal peaks. The DS response is substantially better than the VSG as well, suggesting that pyloric preservation, is not the only factor contributing to improved glucose homeostasis.

LAPAROSCOPIC INTRA-PERITONEAL MESH REPAIR COMBINED WITH CLEAN CONTAMINATED SURGERIES- FEASIBILITY AND SAFETY

Since the first report of laparoscopic ventral hernia repair in 1992, this procedure has gained popularity with benefits of shorter hospital stay, improved patient outcome and fewer complications than the traditional open procedures. Many at times patients will have multiple surgical problems and laparoscopy offers the ability to tackle these problems in the same sitting. In this novel paper we try to study the safety of combining laparoscopic intraperitoneal mesh repair (IPOM) with clean contaminated surgeries like cholecystectomy and hysterectomy. We hereby report the technical details and immediate post-operative result of such procedures.

Material and methods: Between 2006 and 2011 we did 426 cases of laparoscopic IPOM in combination with clean contaminated surgeries. Out of that 126 were hysterectomies and 120 were cholecystectomies. The details of these surgeries and the immediate postoperative out comes were collected in retrospective as well as in a prospective manner and analysed.

Results: Indications for combined procedure were Hysterectomy for non-malignant causes and Cholecystectomy for symptomatic stones with non- inflamed gall bladder associated with Incision hernia. The commonest surgery associated with incisional hernia was Caesarean section. Mean operating time for laparoscopic IPOM with Cholecystectomy was 136 minutes (112 – 172 minutes) and 224 minutes (196 – 285 minutes) for laparoscopic IPOM with hysterectomy. The average hospital stay were 4.3 days (3 – 7 days) for laparoscopic IPOM with hysterectomy and 2.73 days (range: 1 – 5 days) for laparoscopic IPOM with cholecystectomy. We had 36 cases (14.6 %) of seroma, for which 16 patients (6% of cases) were reoperated. We had a single mesh infection. The complication rates were comparable to our results of Intra-peritoneal mesh repair when performed alone.

CONCLUSION: Laparoscopic intra peritoneal onlay mesh can be performed simultaneously with selected clean contaminated surgeries with acceptable morbidity. The
Scientific Session Oral Abstracts

St02
REVISIOnAL SURGERY AFTER FAILED ADJUSTABLE GASTRIC BANDING: INSTITUTIONAL EXPERIENCE WITH 90 CONSECUTIVE CASES

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Introduction: Revisional surgery may be required in a high percentage of patients (up to 30%) after Adjustable Gastric Banding (AGB). There is currently no consensus on the most adapted timing and the bariatric procedure to perform after failed AGB. Our aim is to evaluate the results of revisional surgery with respect to age, gender, revisional procedure and timing.

Methods and Procedures: Data originated from our prospectively collected bariatric surgery database and analyzed retrospectively. From January 1996 to November 2011, a total of 243 AGB were placed at our Institute. Within the same period, 130 AGB (53.5%) were removed and 90 patients (37.7% of the total) underwent further revisional surgery. RYGB was performed when gastroesophageal reflux disease, post-AGB esophageal motility disturbance, hiatal hernia, or diabetes were present. Sleeve Gastrectomy (SG) was proposed if not contraindicated. One-stage revisional surgery consisted in removing the AGB and performing the bariatric procedure simultaneously. Two-stage surgery consisted in removing AGB and performing revisional surgery 3-6 months later.

Results: In two cases, revisional surgery by laparoscopy was aborted due to the impossibility to approach safely the upper stomach for severe adhesions. Eighty-seven patients (74 females; mean age 42.79±10.03 years; mean body weight 123.22±23.09 kg; mean BMI 44.73±5.19kg/ m²) successfully underwent revisional SG (n=48) or RYGB (n=40). One-stage surgery was performed in 29 cases and two-stage surgery in 59 cases. The follow up rate was 78.2% (n=61) and 40.9% (n=36) at 12 and 24 months respectively. One major complication after SG (staple-line leakage), was managed surgically. Mortality was nil. During follow-up, 10 additional complications were observed, including 6 port-site hernias, 2 unexplained cases of abdominal pain and vomiting with negative imaging and laparoscopic exploration, 1 internal herniation managed by laparoscopic repair, and 1 gastro-jejunosumy stricture managed through endoscopic dilatations. Overall postoperative Excess Weight Loss (%EWL) was 31.42%, 40.92%, 52.41%, and 51.68% at 3, 6, 12, and 24 months of follow-up respectively. EWL at 1-year was independent of 1) the revisional procedure (49.84% after SG vs. 56.49% after RYGB; p=0.18); 2) the reasons for AGB removal (52.82% after failure to lose weight vs. 51.03% if removed for complications; p=0.54); 3) the timing of revision (51.04% one-stage vs. 54.11% two-stage; p=0.43); 4) initial BMI (42.64% in patients with BMIs 50kg/m² vs.55.27% in patients with BMI 50kg/m²; p=0.05). There was a statistically significantly higher %EWL in patients <50 years old (55.90% vs. 41.50% in patients >50 years old; p=0.01), in patients of female gender (55.22% vs. 40.73% in male; p=0.04), and in patients in which the AGB was in place for less than 5 years (57.09% vs. 47.43% if > 5 years; p=0.02).

Conclusions: Revisional surgery is safe and feasible in patients who failed to lose weight or who underwent AGB-related complications. Selected patients aged less than 50, of female gender, and with the AGB in place for less than 5 years had better %EWL after revisional surgery. No differences were found regarding timing or type of surgery.

St03
FUNDAMENTALS OF ENDOSCOPIC SURGERY: CREATION AND VALIDATION OF THE HANDS-ON TEST

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Introduction: The Fundamentals of Endoscopic Surgery (FES) program consists of online educational materials and both didactic and skills based tests. All components must be shown to measure the skills and knowledge required to perform safe flexible endoscopy. The purpose of this multicenter study, performed by the FES task force, was to evaluate the reliability and validity of the hands-on component of the FES examination.

Methods: Expert educators and endoscopists identified the critical skill set required for flexible endoscopy by deconstructing the procedural components of upper and lower endoscopy. The skills were then modeled in a virtual reality simulator (GI MentorII, Simbionix Ltd., Israel) and metrics were created. Several pilot studies and iterations were needed in order to refine the skills and metrics. Scores were designed to measure both speed and precision. Validity was assessed by correlating self-reported endoscopic experience (surgeons and gastroenterologists (GI)). Internal consistency of each test task was assessed using Cronbach’s alpha. Test-retest reliability was determined by having the same participant perform the test a second time and comparing their scores. Passing scores were determined by a contrasting group methodology and use of receiver operating characteristic.

Results: The 5 simulated tasks include: scope navigation, loop reduction, retroflexion, mucosal evaluation and targeting. 158 participants (16% GI) performed the simulator test. Scores on the 5 tasks showed sufficient internal consistency reliability and all had significant correlations with the participants’ level of endoscopic experience as measured by self-reported number of cases performed. A composite score was obtained by averaging the five task scores. The composite scores correlated .72 with participants’ level of endoscopic experience providing evidence of their validity and their internal consistency reliability (Cronbach’s alpha) was .82. Test-retest reliability was assessed in 7 participants, and the ICC was .96 (CI .74 .99). The passing score for the minimally qualified candidate was determined and is estimated to have a sensitivity (True positive rate) of .81 and a specificity (False positive rate) of .21 given the pilot sample.

Conclusions: The FES hands-on skills test examines the basic procedural components required to perform safe flexible endoscopy. It meets rigorous standards of reliability and validity required for high stakes examinations, and, together with the knowledge component, may help contribute to the definition and determination of competence in endoscopy.

St04
Trans-Vaginal Organ Extraction: Potential For Broad Clinical Application

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Introduction: Natural Orifice Transluminal Endoscopic Surgery (NOTES) procedures evolved over the past few years. A trans-vaginal approach is a promising alternative for intraperitoneal procedures. Our objective was to evaluate the safety and feasibility of trans-vaginal organ extraction.

Methods and Procedures: This IRB-approved protocol
involved retrospective review of an on-going prospective study. Female subjects who presented to our hospital for elective cholecystectomy, appendectomy, or sleeve gastrectomy were offered participation in the study. Eligible patients met the following criteria: ages between 18 and 75, diagnosis of cholecystectomy, acute appendicitis, or morbid obesity who desired surgical treatment. A hybrid natural orifice approach was used in this series. This involved a conventional laparoscopic surgical approach to the disease, followed by trans-vaginal organ extraction at the completion of the procedure. Vaginal access was performed under direct laparoscopic visualization. After dilating the cervix and placing a uterine mobilizer, a 15-mm trocar was placed in the posterior cul-de-sac of the vagina under direct view. An endoscope was then placed through the vaginal trocar with an endoscopic snare for organ extraction. At the conclusion of the case, a single figure-of-eight absorbable stitch was used to close the defect.

**Results:** Thirty-four women underwent trans-vaginal organ extraction between March 2008 and January 2012. The mean age was 40 years (+/- 12.1) (range 23-63). The mean body mass index (BMI) was 27 (+/- 6.4) (range 16-43). All patients had an ASA classification of 2 or below. The mean operative time for cholecystectomy, appendectomy, and sleeve gastrectomy was 90, 71, and 135 minutes respectively. There were no conversions to open operation and no intraoperative complications. The mean hospital stay was 2 days for all cases. Patients were followed for a mean of 24 months (range 1 - 61). There were 2 pregnancies and 2 successful vaginal deliveries. Six patients (18%) had minor complaints of spotting or heavy menses in the immediate post-operative period that resolved with conservative measures. There were no abdominal wall complications. There were no long-term complications and no mortalities.

**Conclusions:** This initial experience suggests that this surgical approach is safe, does not increase length of stay, and has no long-term vaginal complications. Given this attractive profile, a trans-vaginal approach may prove to be a superior mode of organ extraction, although randomized studies and long-term follow-up are needed.

**S105**

**Disease-Based Mortality After Percutaneous Endoscopic Gastrostomy: Utility of The Enterprise Data Warehouse**

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Percutaneous Endoscopic Gastrostomy (PEG) remains a mainstay of enteral access. Thirty day mortality for PEG has ranged from 16-43%. This study aims to discern patient groups that demonstrate limited survival after PEG placement. The Enterprise Data Warehouse (EDW) concept allows an efficient means of integrating administrative, clinical, and quality of life data. Based on this concept, we developed the Vanderbilt Procedural Outcomes Database (VPOD) and analyzed these data for evaluation of post-PEG mortality over time.

**Methods:** Patients were identified using the VPOD from 2008-2010 and followed for one year post-procedure. Patients were categorized according to common clinical groups for PEG placement: stroke or CNS tumor, progressive neuromuscular disorder, head and neck cancer, other malignancy, or trauma. All-cause mortality at 30, 60, 90, 180, and 360 days was determined by linking VPOD information with the Social Security Death Index. Chi-square analysis was used to determine significance across groups.

**Results:** Nine hundred fifty-three patients underwent PEG placement during the study period.

**Conclusion:** PEG mortality was much higher in patients with malignancies other than head and neck cancer and least for trauma patients. Patients with neuromuscular disorders had a similar mortality curve as head and neck cancer patients.

**S106**

**Preliminary Data on Anti-Scarring Agents in the Prevention of Post Endoscopic Endoscopic Submucosal Dissection (EESD)**

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**Introduction:** Esophageal endoscopic submucosal dissection (EESD) is an effective minimally invasive therapy for early esophageal cancer and high grade Barrett’s dysplasia. However, severe esophageal stricture formation following circumferential or large EEDS has limited its wide adoption. Mitomycin C (DNA crosslinker), Halofuginone (an inhibitor of type I collagen synthesis), and Transforming Growth Factor 3 (TGF 3) (naturally found in healing wounds) exhibit anti-scarring effects which may be of benefit in preventing stricture formation after EESD.

**Methods:** An endoscopic band ligator and snare were used for the initial mucosa incision in a porcine model. An 8-10 cm circumferential mucosal segment was then excised using standard ESD techniques. The exposed muscularis was either left without intervention (Control n=5) or received 4 quadrant, 1 cm interval injections of anti-scarring drug immediately and followed by weekly injections for up to three weeks. Three drugs were used in both high and low doses: Mitomycin C 5mg (n=2), 0.5mg (n=2); Halofuginone 1.5mg (n=2); TGF 2ug (n=2), 0.5ug (n=2). The degree of esophageal stricture formation was assessed endoscopically and with a barium swallow on a weekly basis. Animals were followed clinically and euthanized when stricture formation prevented further therapy.

**Results:** The control group had a mean luminal diameter reduction of 77.7 +/- 12.1% by two weeks and was euthanized after 3 weeks. Compared at two weeks, the halofuginone 1.5mg group showed decreased stricture formation with a luminal diameter reduction of 68.4 +/- 13.3% (low dose) and 57.7 +/- 38.3% (high dose). The TGF 2ug dose group luminal diameter reduction was 65.3 +/- 2.0% compared to TGF 3-high dose group of 76.2%. The second animal in the TGF 2ug dose group was euthanized after one week with a stricture of 64.1%, preventing further therapy. Mitomycin C was the most effective in stricture prevention with luminal diameter reduction of 53.6 +/- 11.8% (low dose) and 35.6 +/- 10.2% (high dose). Of concern, gross inspection of the mitomycin C
S107

RATIONALE FOR THE FUNDAMENTAL USE OF SURGICAL ENERGY™ (FUSE) EDUCATIONAL PROGRAM

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Introduction: Energy devices are ubiquitous in modern operating rooms. The combination of electrical current, heat generation, the wide variety of devices and the complex environments in which they are used can result in complications such as fire or iatrogenic thermal injuries. There is no standard curriculum or assessment for energy-based devices most surgeons are not adequately trained to prevent these problems. The Fundamental Use of Surgical Energy™ (FUSE) program will include a curriculum and certification examination to address this safety issue. The aim of this study was to determine the self-perceived knowledge level of practicing surgeons related to energy devices and safe practices and identify areas to emphasize for the assessment component of the program.

Methods: In the context of developing a valid assessment tool, psychometricians led 15 content experts in a systematic process to define the knowledge and skills (competencies) required to use energy devices safely. These were categorized into 10 sections, each including 2 to 20 objectives (total 63). A survey was sent to 102 SAGES leader (Board, FUSE task force, Quality, Outcomes and Safety Committee) and selected members of the AORN & AAGL. Participants were asked to weight the relative importance of the 10 sections. In addition, they rated each objective for frequency, relevance and importance on a seven-point scale. These ratings were averaged to yield a single number from 1 to 7 for each objective. The survey also included five demographic and self-assessment questions.

Results: 50 people responded to the survey. Only 28% considered themselves “expert” in their knowledge of energy-based devices, while 60% were “somewhat knowledgeable”. 84% had used an energy-based device in addition to electrosurgery in the preceding three months. The most common source of knowledge for these practitioners was “industry sales representative or course” (42%). The highest-rated objectives (>6 out of 7) for the FUSE program included “Identify various mechanisms whereby electrosurgical injuries may occur”, “Identify general patient protection measures for setup and settings for the electrosurgical unit” and “Identify circumstances, mechanisms, and prevention of dispersive electrodes-related injury”. The highest weighted section was “Prevention of Adverse Events with Energy™”, followed by “Fundamentals of Electrosurgery” and “Integration of Energy Systems with Other Medical Devices”.

Conclusion: Although basic and advanced energy-based devices are commonly used, training has come through industry representatives or industry-sponsored courses and few surgeons consider themselves experts. Competencies that emphasize electrosurgical safety and the integration of energy systems with other devices were viewed as most important for the FUSE assessment.

S108

The feasibility of remote proctoring for the Fundamentals of Laparoscopic Surgery (FLS) Skills Test

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INTRODUCTION: Fundamentals of Laparoscopic Surgery (FLS) certification currently requires that tests be administered at accredited test centers. Establishing and maintaining these test centers requires substantial investment of human and financial resources. In addition, test-takers may need to travel, which has both time and financial impacts. Previous studies have demonstrated that it may be possible to reliably score the FLS manual skills remotely using inexpensive web-based technologies such as videoconferencing. However, there have been no investigations examining the feasibility of administering and scoring the FLS exam remotely without the presence of an official onsite proctor. The objective of this study was to assess the feasibility of remotely administering and scoring the FLS examination using live videoconferencing in comparison to standard onsite testing.

METHODS: Twenty participants of varying skill levels were tested at 2 accredited FLS testing centers – the University Health Network in Toronto and McGill University Health Centre in Montreal. Videoconferencing was set up at both sites using a telesimulation platform. An official FLS proctor administered and scored the FLS exam remotely while another on-site proctor scored the participants live. The remote proctor could monitor both the participants themselves in addition to an inside view of the FLS box using two videoconferencing connections. Onsite proctors were instructed only to intervene if necessary, and only if the remote proctor was not administering the exam as per protocol. The entire testing session was recorded at both institutions. Inter-rater reliability was compared using Intra class correlation coefficients (ICC) and modified grounded theory was used to identify themes for barriers to feasibility.

RESULTS: Mean total FLS score (+SD) for onsite proctor was 59.6 (±2.7) and for remote proctor was 58.9 (±2.6). There was a strong significant correlation between onsite and remote raters (ICC=.995; p<.0001). Similar correlations were observed for all five FLS tasks. Barriers to remote FLS test proctoring were classified into 3 distinct time points: (1) pre-task, (2) intra-task, and (3) post-task. Several challenges emerged during the FLS testing: (1) incorrect instrumentation and task setup (2) failure of internet connection (3) camera view failure to correctly present materials for scoring, and security of materials for scoring.

CONCLUSIONS: This study demonstrates that web-based remote proctoring of the FLS skills test is feasible with minor alterations to examination setup. Remote proctoring did not affect evaluation in comparison to onsite testing, although several barriers were identified. Further investigations are needed in order to expand the scope of this study, particularly in relation to the feasibility of remote proctoring for all five FLS tasks.
needed to determine solutions to these barriers, and whether they will impact the reliability and validity of the test. This study provides evidence for a potential alternative to address the high cost and human resource investment currently needed to administer FLS tests worldwide.

**S109**

**A PROFICIENCY BASED SKILLS TRAINING CURRICULUM FOR THE STEP CURRICULUM (SURGICAL TRAINING FOR ENDOSCOPIC PROFICIENCY) PROGRAM**

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**INTRODUCTION**

The STEP program is a collaborative project between SAGES and Olympus America Inc. dedicated to providing flexible endoscopy equipment and a curriculum for training to all surgical residency programs in the US. Currently, the STEP curriculum does not include proficiency based training on physical models that can be used with the equipment. This study developed two novel flexible endoscopy simulators, purchased a third, and then established face and content validity as well as proficiency metrics for training on all three using the STEP endoscopic equipment.

**METHODS**

Three flexible endoscopy simulators were tested. The first was an upper gastrointestinal (UGI) tract model made from foam and cardboard that requires navigation and target identification using a gastroscope. The second was a commercially available colonoscopy model (CM-15, Olympus, Japan) configured with a redundant sigmoid colon. The third was an endoscopic targeting model (as required in biopsies and polypectomy) created from pool vacuum hose and the Operation Game (Hasbro, USA). Performance metrics with time and accuracy measures were developed for the models and the performance of twelve expert surgical endoscopists recorded for each. Proficiency scores were calculated by discarding the best and worst performance times and then calculating a mean expert proficiency time. Face and content validity were established through post-test questionnaires using a 5-point Likert scale with strong descriptors.

**RESULTS**

All experts were right handed males, average age 40, with a mean of 8 years of endoscopic practice (range 1 – 24). Eighty three percent teach residents or fellows and use simulation to do so. Most perform over 50 upper endoscopies (51 to 500) and 100 colonoscopies (101 to 500) per year. The average time for complete navigation of the UGI model was 152 ± 51 seconds (133 ± 57 seconds). Complete navigation of the colonoscopy model with correct loop reduction averaged 285 ± 97 seconds. Proper orientation and successful targeting using the Operation Game model averaged 250 ± 94 seconds with 3 errors. The Operation Game simulator had the strongest face and content validity results (100% agreed or strongly agreed that the technical skills required reflected those needed in clinical endoscopy and that the task encompassed skills sets an experienced endoscopist should have) followed by the colonoscopy model (82% respectively) and the UGI model (64% and 73% respectively). The Operation Game simulator was also the most favorably reviewed in regard to appropriate difficulty (100% agreed), usefulness for training (100% agreed), and suitability for initial training in flexible endoscopy (82% agreed). The estimated cost of the UGI model is less than $5; colonoscopy model ~ $1,800; and Operation Game model ~ $50.

**CONCLUSION**

This study proves face and content validity for three physical flexible GI endoscopy simulators that can be used to train in upper and lower endoscopy as well as instrument targeting. It also establishes expert proficiency metrics that can be used by trainees for structured rehearsal. These relatively inexpensive models will be incorporated into the STEP curriculum.

**S110**

SIMULATION-BASED TRAINING IMPROVES OPERATIVE PERFORMANCE OF TOTALLY EXTRAPERITONEAL (TEP) LAPAROSCOPIC INGUINAL HERNIA REPAIR - A RANDOMIZED CONTROLLED TRIAL

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**INTRODUCTION**

Laparoscopic inguinal hernia repair (LIHR) is associated with reduced post-operative pain and earlier return to normal activities compared to open repair, however, the procedure is difficult to learn. The purpose of this randomized controlled trial was to measure the impact of a novel LIHR curriculum incorporating the McGill Laparoscopic Inguinal Hernia Simulator (MLIHS) by comparing operative performance of residents trained with this new curriculum to those with traditional training.

**METHODS**

17 surgical residents (PGY 2-5) participated in a half-day didactic LIHR course, and were then randomized to the simulation-based proficiency curriculum (Training, T) or standard residency training (Control, C). We used MLIHS for the LIHR simulation training. The simulator and its metrics were previously validated for assessment. Simulator and operative performances were evaluated in both groups at baseline and after the study period during totally extraperitoneal (TEP) repair, using the validated Global Operative Assessment of Laparoscopic Skills–Gross Hernia (GOALS-GH, maximum score = 100). Simultaneously, both T and C groups were blinded to the training status of participants. GOALS-GH scores were compared between T and C groups using t-test. Results reported as mean (95% CI) or median [IQR]. P < 0.05 was considered significant.

**RESULTS**

Of the 17 participants who were randomized, 14 completed their final evaluations (5 T: PGY 3 and 9 C: PGY 2-5). There were no differences in LIHR numbers as primary operator between T group 1 [0;3] and C group 1 [1;5] (P = 0.84) or baseline GOALS-GH scores (T 14.8 (12.8–16.8) and C 13.6 (12.3–14.8), P = 0.20). The number of training sessions to achieve proficiency was 4.8 (95% CI 4.4–5.2) and mean time of total training was 10.5 min (95% CI 6.1–9.1). T group participants reported high educational efficiency and value of TEP simulation-based proficiency curriculum (mean 4.4 on scale of 1-5). After training, OR performance improved in the T group by +3.4 (2.0 – 4.8) points (P = 0.002), whereas no significant change was seen in the C group by +1.2 (1.1 – 3.6), (P = 0.29). Final GOALS-GH scores were higher in T group compared to the C group (18.2 (14.9–21.5) vs. 14.8 (12.4–17.1), P = 0.06).

**CONCLUSION**

This study demonstrates the transfer of skills acquired using a low-cost procedure-specific simulator to the OR. Residents who trained to proficiency on the MLIHS performed better in the operating room compared to those who had not. These results provide evidence to support the use of simulation to teach LIHR.

**S111**

Simulated Colonoscopy Objective Performance Evaluation (S.C.O.P.E.): A non-computer based tool for assessment of endoscopic skills

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**Introduction:** Virtual reality (VR) simulators have dominated the assessment of endoscopic skills. While VR simulators have significant benefits, they are frequently limited by high startup and maintenance costs, suboptimal durability with heavy use, and difficulty creating the “real feel” of GI endoscopy. These limitations led us to develop our physical
model for endoscopic skills assessment, similar to models seen in other aspects of surgical skills assessment and training. The Simulated Colonoscopy Objective Performance Evaluation (S.C.O.P.E.) was developed to fill the need of a lower cost, non-VR based, valid assessment tool. The purpose of this study was to evaluate the ability of this new tool to objectively assess endoscopic skills.

**Methods:** Four tasks were created to evaluate the core skills for diagnostic endoscopy using the Kyoto Kagaku colonoscopy model (Kyoto Kagaku Co Ltd, Japan) as a base platform. The four tasks include: Scope Manipulation requiring use of torque and tip deflection to align a shape in the colon with a matching shape on the monitor screen. Tool Targeting requires coordination with biopsy forceps to contact a metal target. Loop Management requires prevention, recognition and reduction of a redundant sigmoid colon with navigation to the cecum. Mucosal Inspection requires identification of simulated polyps placed randomly throughout a length of simulated colon and rectum, including retroflexion. Key performance metrics were identified and a scoring system developed based on these parameters. Scores for each task were normalized to allow equal weighting for all four tasks. Thirty-five subjects were recruited for this prospective study and stratified into 3 cohorts based on colonoscopy experience: novice (0-50 colonoscopies) (n=11), intermediate (51-139) (n=13), and experts (>140) (n=11). Subjects performed 2 trials of all 4 of the above tasks. Mean normalized scores were compared between groups for both the individual tasks and the total S.C.O.P.E. score by one way ANOVA. Test-retest reliability was determined using intraclass correlation coefficient.

**Results:** Across all four tasks, experts (E) consistently outperformed intermediates (I), who, in turn, outperformed novices (N). These differences were statistically significant for all tasks. Mean normalized scores with 95% confidence intervals for each group on each task are as follows: Scope Manipulation [N-54 (26-82), I-90 (77-104), E-106 (93-118), p=0.0007], Tool Targeting [N-40 (24-55), I-79 (65-93), E-88 (72-105), p < 0.0001], Loop Management [N-51 (24-79), I-78 (57-99), E-101 (98-105), p=0.003], Mucosal Inspection [N-73 (53-92), I-87 (77-96), E-100 (91-108), p=0.013], and Total S.C.O.P.E. Score [N-218 (155-280), I-334 (296-372), E-395 (371-419), p<0.0001]. Initial Test - retest reliability for the expert Total S.C.O.P.E. score was respectable at 0.6.

**Conclusions:** A non-virtual reality, simulation based assessment tool has been created to evaluate the skills required to perform diagnostic endoscopy. Validity evidence shows that scores on these tasks can differentiate between groups expected to have different levels of technical skill. This model shows promise as a low technology tool for objective assessment or training of endoscopic skills. While larger scale validity evidence is needed, the S.C.O.P.E. model shows promise for potential incorporation into programs requiring objective assessment of endoscopic skills, like the Fundamentals of Endoscopic Surgery.
I112
LAPAROSCOPIC VS. OPEN ELECTIVE REPAIR OF PRIMARY UMBILICAL HERNIAS: A REVIEW OF THE ACS NSQIP DATABASE
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Introduction: Over 150,000 umbilical hernia repairs are completed in the United States annually. While the laparoscopic approach has been widely embraced for a variety of hernia repairs, there remains controversy regarding the optimal approach for the repair of primary umbilical hernias. The objective of this study was to compare 30-day outcomes of elective primary open (OHR) and laparoscopic (LHR) umbilical hernia repairs, using a prospectively collected data set.

Methods: We performed a retrospective cohort study using the American College of Surgeons National Surgery Quality Improvement Program (ACS NSQIP) Participant Use Files during 2009 and 2010. Patients greater than 16 years old undergoing repair of primary umbilical hernias were included for analysis. Both CPT codes and post-operative ICD-9 diagnostic codes were used to identify patients to include in this study. Primary outcomes included composite endpoints of 30-day overall complications, 30-day major complications, and 30-day mortality for the LHR and OHR groups. Both univariate analyses and multivariate logistic regression were performed controlling for relevant patient demographics. Secondary outcomes included a comparison of mean operative time and mean hospital length of stay.

Results: A total of 14,885 patients were identified, 13,326 (89.5%) in the open group and 1559 (10.5%) in the laparoscopic group. At baseline, the LHR group had a significantly higher mean BMI, male predominance, and a higher ASA class. Univariate analyses of our primary outcomes demonstrated statistical differences of 30-day morbidity and mortality between the two groups. In our multivariate model, however, after controlling for BMI, gender, ASA, COPD, and type of anesthetic, the odds ratio (OR) for overall complications favored the laparoscopic group (OR 0.59, p<0.01). This difference was driven primarily by the lower rate of wound complications in the LHR group (OR 0.41, p<0.01). The multivariate model for major complications did not reveal a significant difference between the two groups (OR 1.01, p=0.95). There were too few events to perform multivariate analysis on 30-day mortality. The secondary outcome of mean operative time was significantly higher for the LHR group (57.5 min, SD 32.5) compared to the OHR (38.4 min, SD 23.0) group (p<0.001). The mean length of stay was significantly longer after a laparoscopic repair compared to open repair (0.29 days, SD 0.68 vs. 0.17 days, SD 1.49), p<0.002.

Conclusions: This study identifies potential decreased morbidity associated with the laparoscopic approach for elective primary umbilical hernia repairs. However, LHR was found to have an increase in mean operative time and length of stay. These results should be considered within the context of a retrospective study with its inherent associated risks of bias and limitations.

I113
THE GLOBALIZATION OF LAPAROSCOPIC SURGERY: TRANSLATING LAPAROSCOPIC SURGICAL PRACTICE INTO RESOURCE-RESTRICTED CONTEXTS
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Introduction: The adoption of laparoscopic surgery in Africa has been sporadic and minimal. While the most commonly cited explanation for this has been an apparent lack of resources and training, recent studies and numerous training courses have demonstrated that these constraints may not be as significant as previously denoted in the literature. Moreover, there has been a growing interest amongst the surgical community, and more specifically surgical societies and academic institutions, to develop laparoscopic programs in resource restricted contexts. The overall objective of this study was to explore and analyze the potential barriers to the adoption of laparoscopic surgery in a resource restricted hospital, with a view to inform future development of laparoscopic surgical training programs in these contexts. More specifically, this study aimed to: 1) Identify the key actors and institutional processes in the hospital environment that affect the adoption of laparoscopic surgery, 2) identify surgical and institutional attitudes towards laparoscopic surgical practice, and 3) explore how these actors and processes affect the adoption of laparoscopic surgery.

Methods and Procedures: This qualitative study employed a case study design to frame the investigation of facilitators and barriers to the adoption of laparoscopic surgery in a tertiary hospital in Sub-Saharan Africa. The hospital had purchased laparoscopic equipment 4 years prior to this study, and a number of surgeons at this hospital had undergone FLS training 2 years afterwards. The exploratory case study employed a combination of over 600 hours of participant observation, 13 semi-structured interviews and a discourse analysis of relevant documents over three months. During this time, a remote telesimulation FLS course was conducted on campus and this was also observed. A thematic analysis was conducted using a framework that included a rich description of the hospital’s collection period. In addition, data triangulation enhanced the rigour and depth of the analysis. The study findings were further explored and connected to current literature about knowledge translation and laparoscopic surgical training programs.

Results: The study findings indicated that aside from resource constraints and training limitations, there were several other significant contextual barriers to the adoption of laparoscopic surgery. More specifically, cultural, social and institutional barriers directly influenced the partial uptake of laparoscopic surgery. Additionally, the opinions, attitudes and incentives of local surgeons towards laparoscopic surgery varied significantly from those of their Western colleagues. Consequently, this led to constant negotiation concerning global pressures and local needs, which influenced training sessions and clinical practice.

Conclusions: This exploratory case study approach to examining the barriers to the adoption of laparoscopic surgery in a resource restricted context exemplifies a novel approach to addressing issues that have plagued surgeons across low to middle income countries for many years. An understanding of such barriers is an essential step in translating new knowledge into tangible practice changes and clinical outcomes. This study can inform the development of future laparoscopic training curricula and the implementation of training programs in resource-restricted countries.
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use the hospital billing database to assess operating room (OR) costs, hospital admission costs, and overall cost of the patient’s care during the index admission. The operative costs were further analyzed with respect to OR time and OR supplies. Standard statistical analysis was performed to assess for significance.

Results: In the study time period, 123 patients underwent pancreatectoduodenectomy, including 48 OPD (39%) and 75 LPD (61%). The groups were similar with respect to age, gender, ASA, vein resection, and indication for surgery. Included in the LPD group, there were 3 cases which used hand assist (4%) and 10 cases which converted to open (13%). Additionally, 10% of the OPD group underwent total pancreatectomy (n=5), compared to 21% of the LPD (n=16). Median hospital stay for OPD and LPD was 8 days (range: 5-63), and 7 days (range: 4-68) respectively (p=0.5).

The LPD group was associated with significantly higher OR cost due to both increased time and supply cost. However, mean hospital admission cost associated with OPD was greater in comparison to the LPD group, though not significant. The overall total cost of care was similar between the two groups.

Analysis of the subgroup of cases that were converted from laparoscopic to open revealed the mean OR cost was similar (p=0.01). OR supplies. Standard statistical analysis was performed to costs were further analyzed with respect to OR time and significance.

The LPD group was associated with significantly higher OR cost due to both increased time and supply cost. However, mean hospital admission cost associated with OPD was significantly increased at $87,790 (p=0.001).

Conclusion: LPD is associated with equivalent overall cost when compared to OPD. While operating time and supply costs were higher for LPD, this was balanced by decreased cost of the postoperative admission. Patients undergoing LPD with conversion to open were noted to have the highest overall costs of both groups.

SI15

LIMITED HELLER MYOTOMY WITHOUT ANTI-REFUX PROCEDURE IS SIMILAR TO POEM AND DOES NOT INDUCE SIGNIFICANT GERD. Luis C Zurita MV, MD, Radu Pescarus, MD, Lukas Wasserman, MD, Izabela Apriazs, MD, Dennis Hong, MD, Msc, FRCS, FACs, Scott Gmora, MD, FRCS, Margherita Cadeddu, MD, FRCS, Mehran Anvari, MB, BS, PhD, FRCS, FACS; Department of Surgery, Centre of Minimal Access Surgery, St. Joseph’s Healthcare, Hamilton, ON, Canada.

Introduction. Laparoscopic Heller myotomy with partial fundoplication is the gold standard treatment for achalasia, although around 30% of patients complain of gastroesophageal reflux disease (GERD) after surgery. Laparoscopic limited Heller myotomy without dissection of the angle of His and with no anti-reflux procedure is another possible option. This surgery is the premise for the peroral endoscopic myotomy (POEM).

Methods and procedures. A review of prospectively collected data was performed on patients who underwent laparoscopic limited Heller myotomy (myotomy of 8cm distal esophagus and LES) without dissection of the angle of His and with no anti-reflux procedure from January 1998 to December 2012. Patients underwent extensive pre and 6 months postoperative clinical evaluation including: gastroscopy, esophageal manometry, 24 hours pH-metry and the achalasia severity symptom score (ASSS) and SF-36 questionnaires were answered. Comparison between outcomes was performed with paired t student test.

Results. One hundred twenty six patients underwent laparoscopic limited Heller myotomy. Of these, 60 patients had complete motility studies performed pre and postoperatively, while 53 patients were just followed up clinically and endoscopically, and 13 patients did not reach the 6 months follow up threshold.

From the 60 patients with complete motility studies, 34 patients were female and 26 male. Patient mean age was 45.7±15.2 years and mean follow up was 10.5±1.1 months. Mean operative time was 56.1±16.2 minutes and mean length of stay was 1.7±0.6 days. After surgery, patients gained a mean of 12±5.5 lbs. (162.35 vs. 174.52; p<0.001).

A significant decrease in the lower esophageal sphincter (LES) resting pressure (9.8±3.4 vs 2.0±3.1; p<0.001), heartburn (3.8±3.9 vs 1.7±2.8; p<0.01) and regurgitation (7.55±4.4 vs. 0.65±1.9; p<0.001) scores after surgery. Patients reported a significant quality of life improvement after surgery according to the SF-36 questionnaire (physical (p<0.01) and mental component summary (p<0.01)).

One patient (0.8%) presented significant dysphagia after surgery and transthoracic Heller myotomy with an anti-reflux procedure was performed.

Conclusion. Limited Heller myotomy without dissection of the angle of His and with no anti-reflux procedure is an effective treatment for achalasia. Postoperatively, a significant manometric, symptomatic and quality of life improvement is obtained while conserving a similar GERD rate as the traditional Heller myotomy with an anti-reflux procedure. We should expect similar clinical results from POEM.

SI16

An ongoing prospective study evaluating self-gridding mesh (Parietex Progrip?) without additional fixation during laparoscopic total extraperitoneal (TEP) inguinal hernia repair: interim analysis at one year Andrew S Wu, MD, Min Li, MS, Mark Reiner, MD, Brian P Jacob, MD; Mount Sinai Medical Center, New York City.

Background: Self-gridding mesh may eliminate the need for any additional fixation devices during inguinal hernia repairs. However, its use and outcomes (quality of life and recurrence rates) are not yet prospectively studied in a controlled fashion for laparoscopic TEP repairs.

Methods: After completing more than 50 laparoscopic inguinal hernia repairs using self-gridding mesh, under an IRB-approved prospective study we began evaluating our next 100 TEPs. Patient demographics and intraoperative data (defect location, size, mesh deployment time) are recorded. Carolina’s Quality of Life (QoL) score where a mean score of >1.0 is considered symptomatic pain, is employed to evaluate pain and quality of life in the recovery room and post-operatively at 2 weeks, 6 months, and one year. Morbidities, narcotic usage, days to full activity, days to return to work, and QoL scores for the initial patients enrolled are reported.

Results: Since July 2011, we repaired 93 hernias in 66 patients with self-gridding mesh without any additional fixation. 19 hernias were direct defects (average size 2.8cm), 66 were indirect, and 2 were femoral while 6 were Pantalone hernias. Two minor intraoperative morbidities (minor bleeding and transient bradycardia) occurred and average mesh deployment time was 198 seconds. Recovery room pain was 1.1 / 5. At the 2 week visit, total average oxycodone/
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acetaminophen (35/255mg) usage was 5.4 tablets, days to full activity was 1.7, and return to work was 4.5 days. 12 small asymptomatic seromas were palpated without any recurrences or groin numbness. All seromas resolved by the 6 month visit. Transient testis discomfort (present at first visit, but not subsequent visits) was reported in 8 patients. Urinary retention was 3%. Mean CCS™ scores for groin pain laying, bending, sitting, walking, and step-climbing were 0.2, 0.6, 0.3, 0.5, and 0.07 respectively. Mean CCS scores greater than 1.0 occurred in 6% of 66 patients at the first post op visit (range 0-1.78), but 0% of 30 patients at 6 months, and thus far 0% of 11 patients at one year (range 0-0.8). Of the first 11 patients over a year out, none have a recurrence or chronic pain.

Conclusions: Results of this study suggest that using self-gripping mesh without additional fixation during laparoscopic TEP repairs for direct, indirect, and femoral hernias is feasible, leading to a durable repair without significant morbidity. CCS™ pain and QoL scores are very favorable at subsequent post-operative visits followed out for over a year.

S117

LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING AND LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS: A COMPARATIVE ANALYSIS OF LONG-TERM REOPERATION AND FAILURE RATES

James G Bittner IV, MD, Angel M Reyes, MD, Luke G Wolfe, MS, Jill G Meador, RN, BSN, James W Maher, MD, John M Kellum, MD; Department of Surgery, Virginia Commonwealth University Medical Center, Richmond, VA

Introduction: Laparoscopic adjustable gastric banding (LAGB) is considered by many to be a safer and equally effective option compared to laparoscopic Roux-en-Y gastric bypass (LRYGB). Consequently, LAGB quickly became the second most common weight loss operation performed in the United States. Scrutiny of long-term outcomes after LAGB has revealed significant complication and failure rates. We hypothesized that LAGB has higher rates of reoperation, weight loss failure, and overall failure compared to LRYGB at long-term follow-up.

Methods: A matched case-control study was performed using prospectively collected data. Patients who underwent primary LAGB or LRYGB at a university hospital between 2004 and 2011 were matched for age, gender, race, preoperative body mass index (BMI), and the presence of hypertension, diabetes mellitus, obstructive sleep apnea, and hyperlipidemia. All LRYGB procedures were performed using the Paris flaccida technique. Outcomes included patient demographics, percent excess weight loss (%EWL), BMI units lost, BMI at most recent follow-up, and rates of reoperation, weight loss failure (<50% EWL), and overall failure (procedure-related reoperation and/or <50% EWL) at 3 and 5-year follow-up. Using propensity score to select control LRYGB patients, matched cohorts were compared using Chi square and Fisher's exact tests as appropriate (P<0.05).

Results: In all, 228 LAGB and 228 LRYGB patients were matched. At 3 and 5 years, LAGB compared to LRYGB patients had a significantly lower % EWL, lost fewer BMI units, and had a higher BMI (Table 1). At longest follow-up, a similar proportion of LAGB and LRYGB patients underwent primary procedure-related reoperation. Rates of weight loss failure were appreciably higher after LAGB than LRYGB at 3 and 5 years (Table 2). This remained true even when weight loss failure was defined as <25% EWL (31.3% vs. 1.5% at 3 years and 81.5% vs. 15.4% at 5 years, both P<0.01). Overall failure rates, defined as procedure-related reoperation and/or <50% EWL, were higher after LAGB at all time points. Band-related complications included erosion (0.4%), port/band infection (0.4%), leak (0.9%), incisional hernia (0.9%), port inversion (0.9%), slippage (7%), and pouch/esophageal enlargement (9.7%). Procedure-related complications after LRYGB were bleeding (1.7%), incisional hernia (2.6%), anastomotic leak (3.5%), and internal hernia (4.8%). Over the study period, morbidity was higher among LAGB compared to LRYGB patients (19 vs. 12.7%, P=0.04). Procedure-related mortality was low after both LAGB (0%) and LRYGB (0.4%).

Table 1. LAGB and LRYGB outcomes at 3 and 5 years of follow-up

<table>
<thead>
<tr>
<th>Outcome</th>
<th>LAGB (n=67)</th>
<th>LRYGB (n=67)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-year</td>
<td>5-year</td>
</tr>
<tr>
<td>EWL (%)</td>
<td>35%</td>
<td>29.3%</td>
</tr>
<tr>
<td>BMI units lost (kg/m²)</td>
<td>7.4 ± 0.6</td>
<td>5.3 ± 0.9</td>
</tr>
<tr>
<td>Post-op BMI (kg/m²)</td>
<td>36.5 ± 0.7</td>
<td>37.9 ± 1.3</td>
</tr>
</tbody>
</table>

**Between group differences are significant (P<0.05). Continuous variables are presented as mean and standard error.

Table 2. LAGB and LRYGB complications at 3 and 5 years of follow-up

<table>
<thead>
<tr>
<th>Complication</th>
<th>LAGB (n=67)</th>
<th>LRYGB (n=67)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-year</td>
<td>5-year</td>
</tr>
<tr>
<td>Reoperation (%)</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>&lt;50% EWL (%)</td>
<td>75%</td>
<td>81.5%</td>
</tr>
<tr>
<td>Overall failure (%)</td>
<td>77.6%</td>
<td>81.5%</td>
</tr>
</tbody>
</table>

**Overall failure = band, bypass-related reoperation and/or <50% EWL.

Conclusions: Based on this single-center study of long-term outcomes, LAGB has similar rates of procedure-related reoperation and significantly higher rates of weight loss failure compared to LRYGB. Additionally, overall failure rates, defined as procedure-related reoperation and/or weight loss failure, are greater after LAGB than LRYGB. While LAGB may be considered for well-informed and motivated patients, these data suggest that long-term effectiveness of LAGB might be limited.

S118

AGE INFLUENCE ON WEIGHT LOSS AND GLYCOL-LIPID PROFILE AFTER LAPAROSCOPIC SLEEVE GASTRECTOMY: EXPERIENCE WITH 308 CONSECUTIVE PATIENTS

Yoshihiro Nagao, MD, PhD, Michele Diane, MD, Michel Vix, MD, Antonio D’Urso, MD, Didier Mutter, MD, PhD, FACS, Jacques Marescaux, MD, FACS, HonFRCS, HonFJSSE; IRCAD-IHU, Department of General, Digestive and Endocrine Surgery, University Hospital of Strasbourg, France

Introduction: Sleeve gastrectomy (SG) is gaining acceptance as a standalone bariatric procedure with proven efficacy on weight loss and comorbidity improvement. The aim of this study is to evaluate the impact of age on weight loss and on related glycolipid profile changes at two-year follow-up after SG.

Methods and procedures: From July 2005 to July 2010, 336 patients underwent SG and 308 completed a two-year follow-up. Mean age was 39.7 years (SD 10.7), mean weight was 127.9 kg (SD 24.5), mean Body Mass Index (BMI) was 45.9 kg/m² (SD 6.8). To analyze the effect of age on bariatric outcomes, patients were classified according to age into three groups: 1) young (18-29 years old, n=64); 2) intermediate (30-49 years old, n=183) and 3) seniors (≥ 50 years old, n=57). BMI, Excess Weight Loss (%EWL), Homeostasis Model Assessment for Insulin Resistance (HOMA-IR), cholesterol and triglycerides were assessed at 1 month, 6, 12, and 24 months (M1, M6, M12, and M24) after the procedure.

Results: All patients had a significant %EWL and BMI reduction at two years. Mean BMI reduction and %EWL was statistically significantly higher in the younger group at M6, M12, and M24 when compared to intermediate and senior groups (Table 1). A significant lower HOMA-IR improvement was observed at M6 in the older group when compared to...
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both younger (p=0.02) and intermediate (p=0.01) groups of patients. No significant difference was found at M12 (Table 1). Mean total cholesterol and triglycerides were statistically significantly improved in the younger group when compared to both intermediate and senior patients (Table 1).

Conclusions An age-dependent trend towards better %EWL, BMI reduction, and lipid and glycemic profile was observed in younger patients after SG. Although there was a still acceptable 50% EWL, these findings may suggest a limited benefit of SG for senior patients.

## S120

THE FIRST NATIONWIDE EVALUATION OF ROBOTIC GENERAL SURGERY - A REGIONALIZED, SMALL, BUT SAFE START Blair A Wormer, MD, Joel F Bradley, MD, Kristopher B Williams, MD, Amanda L Walters, MS, Vedra A Augenstein, MD, Kristian T Dacey, MHA, Brant T Heniford, MD; Carolina’s Medical Center

Introduction: The purpose of this study was to evaluate the most commonly performed robotic-assisted General Surgery (RAGS) procedures in a nationwide database and compare them to their laparoscopic counterparts.

Methods: The Nationwide Inpatient Sample, which captures approximately 20% of all US inpatient admissions, was queried from October 2008 (the inception of the robotic ICD-9-CM code) to December 2010 for patients undergoing the most common, elective, abdominal RAGS procedures. The two most common, robotic fundoplication (RF) and robotic gastroenterostomy without gastrectomy for bypass (RG), were individually compared to those performed laparoscopically (LF and LG respectively).

Results: During the study period, 295,155 elective, abdominal, general surgery operations were performed in total, 1680 (0.6%) were RAGS. From 2009 to 2010 the incidence of RAGS nearly doubled from 536 to 1039. When evaluating primary procedure codes, the ten most commonly reported elective RAGS procedures were: 1. LG, 2. LF, 3. anterior rectal resection 4. esophagomyotomy, 5. gastric banding, 6. sigmoidectomy, 7. diaphragmatic hernia repair, 8. abdominoperineal resection, 9. loop ileostomy, 10. right hemicolecotomy.

LF was performed in 11,556 (97.5%) and RF in 291 (2.5%). When comparing RF to LF, RF patients were more often Caucasian (91% vs. 83%; p=0.0097), however there was no difference in age, gender, Charlson Comorbidity Index (CCI), Length of stay (LOS), or postoperative complications which include: infection, ileus, obstruction, thromboembolism, enterotomy, or mortality. Total cost for RF was slightly more than LF ($38,974±23,758 vs. $37,454±50,141; p<0.0001), and it was more often performed in zip codes with median income >$45k (78% vs. 52%; p<0.0001), at teaching hospitals (73% of 59%; p<0.0001), and in urban areas (99% vs. 90%; p<0.0001). There was no difference in the proportion of medicare versus private insurance when evaluating RF and LF.

LG was performed in 41,800 (99.3%) and RG in 296 (0.7%). When comparing RG to LG, there was no difference in race, age, gender, CCI, postoperative complications, or mortality; however, LOS was somewhat longer in RG (2.6±2 days vs. 2.4±3 days; p<0.0001). Total cost for RG was substantially more ($62,734±2,480 vs. $43,646±50,141; p<0.0001), and it was more often performed in zip codes with median income >$45k (70% vs. 50%; p<0.0001), at teaching hospitals (88% vs. 51%; p<0.0001), and in urban areas (100% vs. 94%; p<0.0001). There was no difference in the proportion of medicare versus private insurance when evaluating RG and LG.

Conclusions: This first nationwide study of robotic-assisted General Surgery operations exemplifies its low, but increasing incidence across the country. Robotics in General Surgery is regionalized to urban, teaching centers in higher income areas compared to its laparoscopic counterpart. Although the postoperative outcomes for elective robotic and laparoscopic General Surgery are similar, there is an increased cost associated with robotic cases.

## S119

EFFECT OF PHYSIOLOGIC CCK ADMINISTRATION IN HIDA RESULTS James B Depew, MD, Gage Ochsner, MD, FACS; Memorial Health University Medical Center, Mercer University School of Medicine

Introduction: Biliary dyskinesia, or dysfunctional gallbladder ejection, can be measured through the use of a cholecintigraphy (HIDA) scan. A reduced ejection fraction (EF) of <35% suggests that cholecystectomy will result in symptom relief in the setting of acalculous cholecystitis. It has been proposed that a more physiologic 30-minute infusion of CCK to stimulate gallbladder ejection is a better predictor of normal gallbladder function over the previous 3-5 minute rapid infusion protocol. Memorial University Medical Center moved to this new protocol in Sept 2006.

Methods: A retrospective study was conducted in all patients who underwent a HIDA scan with EF for any reason at our 550-bed teaching hospital over the 26-month period surrounding the new CCK protocol. Multiple independent variables were collected on each patient including demographics, abdominal ultrasound results, cholecystectomy status, pathology reports, and biliary ejection fraction. To evaluate symptom resolution, a satisfaction survey was conducted in patients who subsequently underwent cholecystectomy.

Results: A total of 793 HIDA scans were completed with 342 of those having a concomitant normal ultrasound. The diagnosis of biliary dyskinesia was significantly higher at 53% in the 3-5 minute rapid infusion protocol versus 28% in the more physiologic 30-minute protocol. A similar portion of patients underwent cholecystectomy in each group with no difference in pathologic confirmation of acalculous cholecystitis.

Satisfaction survey response rate was 65%. A greater portion of patients diagnosed with biliary dyskinesia by 30-minute infusion HIDA scan reported complete resolution of their presenting RUQ symptoms after cholecystectomy.

Conclusion: The more physiologic 30-minute infusion of CCK during HIDA scan may more reliably predict biliary dyskinesia in acalculous cholecystitis and the potential for symptom resolution following cholecystectomy in this patient population.
FACTORS PREDICTING IN-HOSPITAL MORTALITY IN BARIATRIC SURGERY: AN ANALYSIS FROM THE NATIONAL INPATIENT SAMPLE DATABASE

Muhammad Asad Khan, MD, John N. Afthinos, MD, FACS, Karen E. Gibbs, MD, FACS; Staten Island University Hospital

Objective: Bariatric surgery is being performed in increasing numbers each year. Centers of excellence standards were set up to improve the quality and monitor post-operative morbidity and mortality. Bariatric surgery has matured into a field which maintains high standards for safety and quality. We sought to evaluate the in-hospital outcomes from a large, prospectively collected database to determine predictors of in-hospital mortality to aid in pre-operative assessment of these challenging patients.

Methods: The National Inpatient Sample database was queried for primary bariatric operations performed from 2005 – 2009. Revisional surgery and biliopancreatic diversion-duodenal switch procedures were excluded. Patient comorbid conditions, insurance status, ethnicity, age and gender were evaluated. In-hospital morbidity and mortality was tabulated. A multivariate logistic regression was performed to select factors which contributed to increased mortality.

Results: The weighted national estimate of bariatric procedures performed was 548,106. Laparoscopic Roux-en-Y gastric bypass was the most commonly performed procedure (60.7%). The overall in-hospital mortality was 0.1% (Table 1). Statistically significant predictors of in-hospital mortality included age > 50, male gender, open procedure, COPD, obstructive sleep apnea, peripheral vascular disease and congestive heart failure (Table 2).

Conclusions: Operative mortality in bariatric surgery remains very low, rivaling that of more commonly accepted procedures (i.e. laparoscopic cholecystectomy). Despite the many comorbidities associated with the morbidly obese patient, excellent outcomes can be achieved when these patients are managed appropriately. These outcomes speak to the level of maturity and dedication to quality patient care in the field of bariatric surgery. Even with the recent introduction of the sleeve gastrectomy, outcomes remain excellent.

Table 1. Bariatric procedure type and corresponding mortality rate

<table>
<thead>
<tr>
<th>Procedure type</th>
<th>ICD-9 Code</th>
<th>N (%)</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open GBP</td>
<td>44.31, 44.39</td>
<td>67340 (12.3%)</td>
<td>232 (0.3%)</td>
</tr>
<tr>
<td>Lap GBP</td>
<td>44.38</td>
<td>332566 (60.7%)</td>
<td>278 (0.1%)</td>
</tr>
<tr>
<td>Lap Gastric band</td>
<td>44.95</td>
<td>111427 (20.8%)</td>
<td>36 (0.0%)</td>
</tr>
<tr>
<td>Lap Gastroplasty</td>
<td>44.68</td>
<td>126272 (2.3%)</td>
<td>5 (0.0%)</td>
</tr>
<tr>
<td>Sleeve Gastrectomy</td>
<td>43.89</td>
<td>21301 (3.9%)</td>
<td>25 (0.1%)</td>
</tr>
</tbody>
</table>

Table 2. Multivariate logistic regression analysis for predictors of mortality

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Relative risk (95% CI)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &gt;50</td>
<td>3.2 (2.5-4.0)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Male gender</td>
<td>2.5 (1.5-4.0)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Hypertension</td>
<td>0.4 (0.3-0.5)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Sleep apnea</td>
<td>2.4 (1.7-3.3)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Chronic pulmonary disease</td>
<td>2.3 (1.6-3.3)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Diabetes</td>
<td>0.6 (0.5-1.8)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>5.4 (2.6-11.2)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Smoking</td>
<td>1.4 (0.8-2.3)</td>
<td>NS</td>
</tr>
<tr>
<td>Open procedure</td>
<td>4.1 (3.5-5.0)</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
V001
PURE LAPAROSCOPIC ANTERIOR SECTIONECTOMY WITH A HANGING MANEUVER
Go Wakabayashi, MD, Hiroyuki Nitta, MD, Takeshi Takahara, MD, Yasushi Hasegawa, MD, Shoji Kanno, MD, Akira Sasaki, MD; Department of Surgery, Iwate Medical University School of Medicine

We performed a pure laparoscopic anterior sectionectomy with a hanging maneuver for HCC. A hanging maneuver is useful because it defines the cutting line and reduces blood loss. This HD video with good quality shows clearly how to do it.

V002
CUTTING OUT THE MIDDLE MAN: LAPAROSCOPIC CENTRAL PANCREATECTOMY
Rebecca Kowalski, MD, Niket Sonpal, MD, Jennifer Montes, MD, Paresh C Shah, MD; Lenox Hill Hospital, Northshore-LIJ Health System

We present a 53 year old woman found to have a solid mass in the junction of the neck and body of the pancreas. EUS-FNA of the mass was consistent with a neuroendocrine tumor. There was no evidence of distant metastatic disease. The patient was offered a laparoscopic approach to a central pancreatectomy. This video highlights some of the technical aspects of the procedure, including an invaginated pancreaticogastrostomy. Operative time was 5 hours with minimal blood loss.

V003
LAPAROSCOPIC LONGITUDINAL PANCREATICOJEJUNOSTOMY USING CYSTOSCOPE AND ERCP BASKET FOR RETRIEVAL OF LEFT OVER PANCREATIC DUCT STONES
Manash Sahoo, Associate, Professor, Anil Kumar, Post, Graduate; Deenbandhu Chhotu Ram Medical College

In this case series 12 cases of chronic calcific pancreatitis with pancreatic duct diameter more than 14 mm with antero-posterior dimension of pancreatic head less than 3 cm without parenchymal calcification were taken up for laparoscopic longitudinal pancreaticojejunostomy. After retrieving the stones using standard laparoscopic hand instruments the cystoscope was introduced to the head & tail of the pancreas to check for any leftover stones, if found any were retrieved using ERCP Basket. The final anastomosis of the opened up pancreatic duct to jejunum was done with monofilament suture material intracorporeally.

V004
TOTAL LAPAROSCOPIC PANCREATICODUODENECTOMY FOR CANCER
Thuan Nguyen, MD, Long Tran, MD, Bac Nguyen, MD, Tuan Le Quan, MD, Dat Le, MD; Division of Gastroenterologic and General Surgery, Department of Surgery, University Medical Center, Viet Nam

I would like to introduce the technique of laparoscopic pancreaticoduodenectomy. The procedure is performed with the patient in the supine position. Typically, a total of 6 trocars are used for the procedure. The procedure begins with mobilization of the hepatic flexure and a wide Kocher’s maneuver to rule out pathological lymphadenopathy. The right gastroepiploic vessels are ligated and divided and the gastro-colic ligament is dissected in order to enter the lesser sac and to expose the antral region. Following the middle colic vein, the superior mesenteric vein is reached below the inferior border of the pancreas and the retro-pancreatic tunnelization begins. The portal vein is identified at the superior border of the pancreatic neck. The retropancreatic tunnelization is completed and a loop is passed around the pancreas. The cholecystectomy is then performed, now the lymphadenectomy of the hepatoduodenal ligament begins along the celiac artery. During the dissection, the origin of the right gastric artery is identified. The lymphadenectomy continues by removing all the lymphatic tissue surrounding the common bile duct up to the hepatic hilum. The first portion of the duodenum is transected with a linear stapler 2 to 3 cm distal to the pylorus. The gastroduodenal and right gastric arteries are ligated, and divided. The first jejunal loop is divided using a linear stapler, the jejunal stump is passed into the supramesocolic compartment.

Dissection of the pancreatic head and uncinate process off the portal vein, superior mesenteric vein, and superior mesenteric artery is typically performed using hem-o-lock clip and ultrasonic shears. Larger tributary vessels (pancreaticoduodenal vessels) are clipped. The pancreatic neck parenchyma is divided ultrasonic shears. The Wirsung’s duct is identified. All peripancreatic lymphatic tissue is taken en bloc with the specimen. The common bile duct is divided. The dissection step is completed.

An end-to-side, pancreaticojejunoanastomosis, duct-to-mucosa anastomosis is performed over an 8-cm Silastic tube with an inner layer of 5-0 PDS sutures and an outer layer of running 4-0 PDS sutures. An end-to-side hepaticojejunoanastomosis is performed with running 4-0 PDS sutures. An antecolic, end-to-side duodenoojejunostomy is performed with 2 layers of running 3-0 Vycril.

The specimen is then removed in an endosac via the infraumbilical trocar site extended. This is a view of the abdominal incision as seen at the end of the procedure.

V005
LAPAROSCOPIC ISOLATED CAUDATE LOBECTOMY FOR HEMANGIOMA
Juan P Toro, MD, Nathaniel W Lytle, MD, Ankit D Patel, MD, S Scott Davis, MD, Juan M Sarmiento, MD, Edward Lin, DO; Emory university

The anatomy of the caudate lobe and its close proximity to major vascular structures make resection difficult. The laparoscopic approach can provide excellent visualization for dissection and vascular control in addition to the known benefits of a minimally invasive procedure. We present our fifth case of laparoscopic caudate lobe resection. It is a 57-year-old female patient with a 6.5cm hemangioma in the caudate segment compressing the IVC, portal vein, the left and medial hepatic veins, as well as the left bile duct. This caudate lobe resection was performed without any intraoperative complication. The operative time was 56 minutes. Blood loss was under 100cc and the length of stay was two days.

V006
AN UNUSUAL COMPLICATION AFTER REVISIONAL LAPAROSCOPIC GASTRIC BYPASS SURGERY
Andrew S Wu, MD, Daniel M Herron, MD; Mount Sinai School of Medicine

We present the diagnosis and management of an early post operative small bowel obstruction caused by mesocolic herniation after revisional laparoscopic gastric bypass. We highlight some of the key radiologic findings which are critical in diagnosing this complication after gastric bypass surgery. Additionally, we demonstrate important technical details of the surgical repair.

V007
CASE REPORT: MASSIVE GASTRO-GASTRIC HERNIATION WITH NECROSIS FOLLOWING GASTRIC PICATION EMERGENTLY CONVERTED TO SLEEVE GASTRECTOMY
Paul Cartwright, MD, Howard McColllister, MD, Paul Severson, MD; Minnesota Institute for Minimally Invasive Surgery at the Cuyuna Regional Medical Center

Greater curvature plication is explained with case report of necrotic gastro-gastric herniation. Film is presented of takedown of greater curvature placation, followed by simultaneous resection of necrotic stomach and conversion to sleeve gastrectomy.

V008
ENDOLUMINAL BARIATRIC SURGERY POST-GASTRIC
Intraoperative endoscopy demonstrated a very tight stenosis that was nonresponsive to multiple attempts at endoscopic balloon dilatation and stenting. Her dysmotility symptoms did not improve and she developed weight recidivism. Therefore, she was converted back to a gastric bypass in 2011. She presented to our clinic in 2012 with abdominal pain of 6 months duration. A chest x-ray showed dextrocardia. A small bowel follow through showed the stomach towards the right, and the bowel was reversed. Laparotomy was attempted in 2012 however was aborted due to dense adhesions. Laparoscopy was attempted in 2012 however was aborted secondary to dense adhesions. She presented with a weight of 168 kg and BMI of 62.5. We performed a laparoscopic revision of the gastrojejunal anastomosis and pouch reduction.

Results: All three cases were technically successful with no perioperative complications. The operative time was 96, 48 and 110 minutes respectively. No patients had postoperative dysphagia, regurgitation or reflux. All demonstrated increased satiety and fullness with some element of weight loss in the short term.

Conclusion: We present our experience performing a laparoscopic gastrojejunal anastomosis and pouch reduction. Three cases were technically successful with no perioperative complications. The operative time was 96, 48 and 110 minutes respectively. No patients had postoperative dysphagia, regurgitation or reflux. All demonstrated increased satiety and fullness with some element of weight loss in the short term.

Introduction: Revision for weight regain after Roux-en-Y gastric bypass (RYGB) has been tempered by the high complication rates associated with standard surgical approaches. Endoluminal revision after bariatric surgery has included stoma, gastric pouch and closure of gastro-gastric fistulas.

Methods: We present 3 cases of patients post gastric bypass with both weight regain and gastrointestinal symptoms undergoing endoluminal therapy. The first case is a 48-year-old female who had undergone gastric bypass 10 years prior with a BMI of 65.4 kg/m2 and weight of 160 kg. A nadir weight of 72 kg was achieved however, she presents with an increasing weight of 83 kg and abdominal pain. Her work up demonstrated iron deficiency anemia and upper endoscopy demonstrated a dilated stoma and gastrogastric fistula. We describe a technique of fistula identification with closure and stoma reduction using an endoluminal suturing system.

Second case is a 49-year-old female with morbid obesity who is status post-gastric bypass 7 years previously. A nadir weight of 73 kg was achieved however she presented with weight gain to 111 kg and a BMI of 39.84 and had dumping syndrome. She had an upper endoscopy showing an enlarged gastric pouch thought to be contributing to weight gain and dumping. We performed gastrojejunal anastomosis repair.

Third case is a 42-year-old female who had open Roux-en-Y gastric bypass in 2002. Initial weight at that time was 186 kg and she obtained 57 kg of weight loss in the first year. Weight gain occurred at about 3 years post operation. Upper endoscopy showed a large gastric pouch and large gastrogastrotic fistula. She had undergone first attempted laparoscopic revision in 2008 but was aborted due to dense adhesions. Laparotomy was attempted in 2012 however was aborted secondary to dense adhesions. She presented with a weight of 168 kg and BMI of 60.25. We performed closure of gastrogastric fistula and pouch reduction.

Vo09 REVISION OF GASTROJEJUNOSTOMY FOR STENOSIS Ruby Gatschet, MD, Cyrus Moon, MD, Saber Ghiassi, MD, MPH, Keith Boone, MD, Kelvin Higa, MD, Advanced Laparoscopic Surgery Associates, UCSF Fresno

In this video, we present the revision of a gastrojejunostomy for stenosis. The patient is a 52-year-old woman who initially had Roux-en-Y gastric bypass in 1999. In 2001, she underwent repair of a perforated marginal ulcer, followed by revision gastroplasty for a chronic non-healing ulcer in 2003. She was then converted to a gastric sleeve in 2003 in light of the development of gastrointestinal dysmotility symptoms. Her postoperative course was complicated by leak, which was treated with stenting. Her dysmotility symptoms did not improve and she developed weight recidivism. Therefore, she was converted back to a gastric bypass in 2011. She then presented with a persistent gastrojejunal stenosis that was nonresponsive to multiple attempts at endoscopic dilation. She was taken to the operating room for revision of her gastrojejunal stenosis. Upon entry into the abdomen, numerous adhesions were noted, which were lysed. As the adenocystosis proceeded superiorly, the Roux limb was noted. Intraoperative endoscopy demonstrated a very tight stenosis and an enlarged gastric pouch. Further dissection revealed that the gastrojejunal anastomosis was located eccentrically on the gastric pouch, away from the lesser curve. After the Roux limb was transected, allowing for a line of demarcation to appear along the anastomosis, the proximal Roux limb was dissected off of the gastric pouch. The previous vertical staple line was also resected, and the gastric pouch was reformed using the linear cutting stapler. An enterotomy was then made in the Roux limb, and the anastomosis was completed using full-thickness interrupted suture. Endoscopy confirmed a smaller pouch and a patent anastomosis. A drain was left in place for 3 days. Her symptoms of dysphagia have improved.

Sleeve Gastrectomy in a Patient with Situs Inversus

Vo11 LAPAROSCOPIC REPAIR OF A GIANT HERNIA OF MORGAGNI IN AN ADULT Ajay K Chopra, MD, Aida Taye, MD, Harvey Rainville, MD; Jacobi Medical Center, Albert Einstein College of Medicine, Bronx, NY

The purpose of this video is to demonstrate the technical aspects of laparoscopic reduction of hernia contents and repair of a very large hernia of Morgagni in an adult. This patient is 65 years old, male who presented with left sided abdominal pain of 6 months duration. A chest x-ray showed presence of bowel on the right side of the chest. A CT scan of the chest and abdomen showed anterior diaphragmatic hernia with herniation of colon and small bowel. Patient was scheduled for an elective laparoscopic repair of the hernia with mesh. Patient was discharged home on the same day and made an uneventful recovery.

Vo12 ROBOTIC TECHNIQUE FOR CHALLENGING ASPECTS OF DONOR NERFRECTOMY Aliza M Coker, MD, Kristin L Mekeel, MD, Joselin Cheverie, MD, Juan S Barajas-Gamboa, MD, Bryan J Sandler, MD, Garth R Jacobsen, MD, Ajai Khanna, MBBS, PhD, Mark A Talamini, MD, Alan W Hemming, MD, Santiago Horgan, MD; University Of California San Diego

With exceptional operative times, minimal blood loss, and excellent graft survival, a robotic technique has become our technique of choice for donor nephrectomies. Here we demonstrate some difficult cases including a patient with a very large lumbar vein, a patient with a retro-aortic renal vein, and a patient with two renal arteries. The utility of the robot is demonstrated in these cases that would be technically demanding to perform laparoscopically.
BILATERAL PARTIAL ADRENALECTOMY FOR BILATERAL PHEOCHROMOCYTOMA

INTRODUCTION: Bilateral pheochromocytoma is typically treated with surgical resection, most often by bilateral total adrenalectomy. This mandates that patients will be on chronic medication to replace adrenal function. Recently, partial adrenalectomy has been described.

CASE DESCRIPTION: An otherwise healthy 40 year old woman presented with significant hypertension in 2010 while preparing to undergo minor surgery. Medical treatment was initiated, but the patient’s symptoms worsened to include headaches, palpitations, and sweating. Work up included a CT scan of the abdomen that demonstrated bilateral adrenal lesions. Urine metanephrines were consistent with pheochromocytoma and selective adrenal venous sampling demonstrated that both adrenal masses were functioning pheochromocytomas. This video demonstrates that bilateral partial adrenalectomy can successfully be performed and details this patient’s outcome.

CONCLUSION: Bilateral partial adrenalectomy can safely and effectively be performed for bilateral pheochromocytoma. This has the effect of significantly improving the patient’s quality of life by both alleviating the associated symptoms of pheochromocytoma and by preventing the need for chronic adrenal replacement medications.

TOTALY INTRACORPOREAL LAPAROSCOPIC SIGMOIDECTOMY WITH TRANSVAGINAL SPECIMEN EXTRATION

INTRODUCTION: Celiac Artery Compression (CAC) syndrome has been shown to be feasible in both cadaveric models and in humans. This video demonstrates how the da Vinci Robotic Surgical System is used to perform full thickness local excision of a rectal neoplasm.

EXPERIENCE WITH LAPAROSCOPIC MEDIAN ARCuate LIGATION RELEASE IN 26 PATIENTS

INTRODUCTION: Celiac Artery Compression (CAC) syndrome or Median Arcuate Ligament Syndrome (MALS) was first described in 1963. MALS has remained somewhat ambiguous and difficult to definitively diagnose and treat. This is due to divided data with various treatments. Due to this variability, it is difficult to evaluate clinical outcomes of these patients.

METHODS AND PROCEDURES: 26 consecutive patients who underwent MAL release were analyzed. Pre- and postoperative celiac ultrasounds were obtained. This video details the surgical technique and the results of follow up in 26 patients.

RESULTS: Data were available from 26 patients pre-treatment and 26 patients post-treatment. Patients with follow-up data were not significantly different at pre-treatment from those without follow-up data. There was one operative conversion to an open laparotomy. Length of stay ranged from 1-9 days. There were no intra-operative complications. Six patients required re-admission for tachycardia, pancreatitis, or a segmental pulmonary embolus. All six patients were treated non-operatively. At this time, no patient has required re-operative therapy for recurrent symptoms.

CONCLUSION: Laparoscopic MAL release is safe and associated with minimal complications. Based on our experience, we feel that the etiology of MALS is a neurogenic process with compression of the celiac plexus that presents as CAC. Hence, the critical step to the procedure requires division of the celiac plexus. Pre-operative selection is critical to enhance patient outcomes.
LAPAROSCOPIC EXCISION OF TYPE Ic CHOLEDODCHAL CYST INCLUDING INTRANAPERICRAN PORTION WITH HEPATICOJEJUNOSTOMY RECONSTRUCTION

Cameron D Adkins, MD, John A Strauffer, MD, Adam S Harris, MD, Horacio J Asbun, MD, FACS, Mayo Clinic Florida

We present a type Ic choledochal cyst with intrapancreatic extension of the common bile duct treated with laparoscopic complete excision and hepaticojejunostomy reconstruction. This case highlights the recommended treatment of choledochal cysts with complete excision including any intrapancreatic extension and the feasibility and technique of performing this laparoscopically.

LAPAROSCOPIC ENucleATION OF A BRONCHOCENTIC CYST OF ESOPHAGUS

Pablo Omelanczuk, Martin Berducci, P Gomez, MD, M M Asur, MD, J Nef, MD; Division of General and Minimally Invasive Surgery, Department of Surgery, Italian Hospital of Mendoza, Mendoza, ARGENTINA

Introduction: Bronchogenic cysts are rare bronchopulmonary foregut malformation. Intramural esophageal localization has been poorly reported in literature. The surgical resection is the only definitive treatment for most of these. A laparoscopic approach can be attempted in cysts located in the distal esophagus. This video highlight technical details of a laparoscopic enucleation of a bronchogenic cyst of the esophagus.

Methods: A 60 year old man with no significant medical history presented to clinic with a long-lasting gastroesophageal reflux. In the work up that included upper endoscopy and CT scan of chest and abdomen the patient was diagnosed with a Cyst of the distal esophagus with benign characteristics. Due to the locations of the cyst patient was elected to undergo a laparoscopic enucleation.

Results: After pneumoperitoneum was achieved, a diagnostic laparoscopy was performed, revealing no intra-abdominal abnormality. Dissection was carried out around the Gastroesophageal junction. The hiatus was opened, dissecting the distal 10 cm of the esophagus into the mediastinum. The cyst of esophagus was identified and mobilized completely into the abdominal cavity. Using the harmonic device the cyst was dissected all around and removed from the muscle layer of esophagus. An air leak test did not show any perforation on the mucosa. A closure of the myotomy was performed using a running absorbable suture. Then, a Nissen Fundoplication was performed using interrupted sutures. The fundoplication was secured to the right and left crus. A drain was left close to the myotomy. The operative time was 100 minutes. There were no intra- or post-operative complications. Patient was discharged on postoperative day 2.

Conclusions: Laparoscopic enucleation of bronchogenic cyst of distal esophagus is a valid surgical therapeutic option. The minimally invasive approach allows for a complete cyst enucleation avoiding the necessity of large laparotomy, thoracotomy or thoraco-phreno-laparotomy.

LAPAROSCOPIC ENucleATION OF A HORSESHOE-SHAPED LEIOMYOMA OF THE LOWER ESOPHAGUS

Demetrio Cavadas, MD, Roberto E Remolo, MD, Alfredo Amenabar, MD, Agustin Duro, MD, Fernando G Wright, MD, Axel F Beskow, MD; Hospital Italiano de Buenos Aires

Esophageal leiomyomas are rare benign tumors that represent 0.4-1% of all esophageal lesions. The most frequently found symptom is dysphagia. In the treatment of these tumors, enucleation should always be attempted in order to avoid an esophagectomy. This video shows a 61 year old male who presented with dysphagia that started 2 months before and weight loss of 11 lbs. An esophagogastroduodenoscopy, barium swallow, endoscopic ultrasound and computed tomography with distension technique were done, showing a large submucosal tumor of the lower esophagus, proximal to the gastroesophageal junction (GE). A laparoscopic approach was decided, although a thorascopy could not be ruled out due to the tumor’s large size and proximal extension. A conventional 4 port placement and a Nathanson liver retractor were used, as usually done to approach the hiatal region. After dissecting the GE and the lower mediastinum, the large tumor was identified and enucleated. The anterior vagus was preserved. The opened esophageal muscular layers were closed. Intraoperative endoscopic control was done during the whole surgery, allowing to precisely identify the tumor and detect any potential mucosal tear. The patient did well and was discharged on postoperative day 2, after a barium swallow that showed no leaks and good esophageal clearance. Esophageal horseshoe leiomyomas are rare tumors that, although benign, could lead to an esophagectomy. The enucleation, when possible, is the treatment of choice.

LAPAROSCOPIC DISTAL GASTRECTOMY WITH D2 LN DISSECTION IN ADVANCED GASTRIC CANCER

Kyo Young Song, MD; Seoul St. Mary’s Hospital

A 34 year-old woman underwent laparoscopic distal subtotal gastrectomy with D2 lymph node dissection for gastric cancer. According to the Japanese guideline, we have done classical D2 lymphadenectomy for #4d, #4sb, #5, #7, #8a, #12a, #9, corresponding to #11p, #1, and #3. All procedures including reconstruction were performed intracorporeally.

LAPAROSCOPIC LOW ANTERIOR RESECTION WITH EN BLOC SMALL BOWEL RESECTION AND DIFFICULT TAKEDOWN OF THE SPLENIC FLEXURE

Deborah S Keller, MD, Justin K Lawrence, MD, Conor P Delaney, MD, MCh, PhD; University Hospital- Case Medical Center

This 65 year-old man presented to the emergency room with 2 weeks of abdominal pain, bloating, and constipation. His history was significant for 2 previous abdominal operations and 40-50 years of smoking. A CT scan showed circumferential sigmoid thickening. He subsequently underwent a colonoscopy, where an obstructing sigmoid mass approximately 5 cm from the anal verge was unable to be traversed. Biopsy demonstrated poorly differentiated adenocarcinoma. The patient was referred to colorectal surgery for management. A pelvic MRI was performed, demonstrating transmural infiltration into the pericolic fat, with distal ileum adherent to the mass. After consent was obtained, the patient was scheduled for a laparoscopic low anterior resection.

The patient was positioned in modified lithotomy, and access to the abdomen was obtained through an open Hassan approach. On inspection, a large, bulky mass was visualized, with distal small bowel adhered, very deep in the pelvis. The small bowel was divided to gain access to the dissection planes around the large mass. A lateral to medial dissection was initially performed to define the presacral plane, avoiding the ureter, nerves, and area of mesorectal invasion. A high division of the IMA was performed, then a medial to lateral dissection was done. The splenic flexure was noted to be high and very close to the colon, making its takedown difficult. Once complete, the rectal planes were well visualized. A total mesorectal dissection was performed, mobilizing the rectum to the anal canal posteriorly. Anteriorly, the pouch of Douglas was incised to aid circumferential mobilization. The rectum and its mesentery were divided at the peritoneal reflection. The small bowel was then exteriorized through a midline incision, and a stapled side-to-side, functional end anastomosis was performed. The divided rectosigmoid was then exteriorized, and transected proximal to the mass.
The EEA anvil was placed, and the sigmoid returned to the peritoneal cavity. A transversus abdominis plane block was placed. Then, a stapled colorectal anastomosis was completed, verifying integrity with a negative leak test. Final pathology on the specimen was T4N2bM0 (Stage IIIC). The patient’s hospital length of stay was 2 days.

**V023**

**LAPAROSCOPIC TOTAL MESAORECTAL EXCISION IN POST CHEMO-RADIO THERAPY RECTUM - STANDARDISED TECHNIQUE**

**N Siddiqi, Mr; S Zeidan, Mr, B Barry, Mr, J Khan, Mr, A Parvaiz, Professor; Queen Alexandra Hospital**

**Description:** The video demonstrates standardized steps for laparoscopic Total Mesorectal Excision (TME) in post chemo-radiotherapy rectum. The aim is to reproduce these steps independent of patient factors, such as gender, BMI or preoperative radiotherapy with the aim to protect nerves and follow oncological principles of the TME plane.

**Conclusion:** A highly standardized technique for laparoscopic TME is required to achieve reproducible and beneficial results.

**V024**

**LAPAROSCOPIC PANPROCTOCOLECTOMY AND ILEO-ANAL POUCH IN ULCERATIVE COLITIS**

**N Siddiqi, Mr; S Zeidan, Mr, B Barry, Mr, J Khan, Mr, A Parvaiz, Professor; Queen Alexandra Hospital**

We present our technique of laparoscopic panproctocolectomy and ileo-anal pouch formation in patient with ulcerative colitis. By standardizing the technique we are able to achieve good clinical outcomes in non-selective patient group requiring pouch surgery.

**V025**

**LAPAROSCOPIC SINGLE INCISION RIGHT HEMICOLECTOMY**

**R Parthasarathi, MD, P Praveen Raj, MD, P Senthilnathan, MD, FACS, S Rajapandian, MD, N Anand Vijay, MD, C Palaniyvelu, MD, FACS; GEM Hospital Hospital & Research Centre**

**Background:** Laparoscopy is gaining acceptance as evidenced by increasing number of reported literature. Single incision right hemicolectomy is indicated mainly in benign and malignant diseases of cecum, ascending colon. We present a video of Laparoscopic single incision right hemicolectomy done at our institution.

**Materials and methods:** The video shows the various steps of the surgery, technical issues and safety precautions.

**Conclusion:** Laparoscopic single incision right hemicolectomy is feasible & safe procedure in the hands of experienced laparoscopic surgeon. It is especially attractive to young patients because of cosmesis, less post op pain & earlier return to recovery.

**V026**

**TECHNIQUES FOR LAPAROSCOPIC REPAIR OF MAJOR INTRA-O PERATIVE VASCULAR INJURY**

**Mehran D Jafari, MD, Alessio Pigazzi, MD, PhD; University of California, Irvine**

A 39-year-old male with a history of HIV presented with 2-week history of obstruction. A colonoscopy was consistent with benign sigmoid stricture for which he was taken to the operating room for a laparoscopic exploration and possible sigmoidectomy. At the time of operation, a perforation was noted consistent with a sigmoid volvulus. A sigmoid colectomy was performed in a standard medial to lateral fashion. A thermal injury to the left external iliac vein occurred during dissection of the peritoneum over the left pelvic brim. Direct pressure was placed on bleeding vessel via Ray-Tec. The colon was mobilized, allowing for better visualization of the injury and the vessel. Once visualization was obtained, a 4 mm venous laceration was noted. Hemostasis was achieved via application of pressure followed by intracorporeal 4-0 vicryl sutures. The patient remained hemodynamically stable during the entire case with an EBL of 250cc. Post-operatively the patient did well and was discharged home on POD 3 and is doing well at his 6month post-op visit.

**V027**

**LAPAROSCOPIC EXPLORATION AND PSOAS IMPLANTATION OF THE GENITOFEMORAL NERVE FOR POST-HERNIORRHAPHY NEURALGIA**

**Peter S Wu, MD, Jennifer A McMellan, MD, Pranay M Parikh, MD, John R Romanelli, MD; Baystate Medical Center**

Inguinodynia after inguinal hernia repair is a difficult clinical problem that has been gaining increasing recognition. Amongst the commonly involved nerves, the anatomic course of the genitofemoral nerve as it travels along the psoas muscle lends itself in particular to laparoscopic intervention. We submit a video of a patient suffering from debilitating pain in the genitofemoral distribution after a totally extra-peritoneal inguinal hernia repair for recurrence following a remote open herniorrhaphy. In the video, we demonstrate laparoscopic transabdominal preperitoneal exploration, identification and isolation of the nerve along the psoas, and liberalization of the nerve from the offending piece of mesh. The nerve stump was laparoscopically implanted into the psoas muscle as is congruent with the principles of peripheral nerve surgery performed for neuropathic pain syndromes. Postoperatively the patient had lasting resolution of his pain.

**V028**

**LAPAROSCOPIC PANCRES-SPARING DUODENECTOMY**

**Yorihiko Muto, MD, Akhiro Cho, MD, Hiroshi Yamamoto, MD, Osamu Kainuma, MD, Hidehito Aritsumi, MD, Atsushi Ikekda, MD, Hiroaki Souda, MD, Yoshihiro Nabeya, MD, Nobuhiro Takiguchi, MD, Matsuo Nagata, MD; Division of Gastroenterological Surgery, Chiba Cancer Center Hospital**

**Background:** Although pancreas-sparing duodenectomy (PSD) is an attractive surgical procedure for patients with disease of the duodenum without pancreatic involvement, the surgical technique is challenging due to the close anatomical relationship between the pancreas and the duodenum.

**Methods:** Three patients with duodenal tumor without pancreatic involvement underwent laparoscopic PSD. Surgical technique: In two patients, laparoscopic pancreas-sparing subtotal duodenectomy was performed. End-to-side anastomosis between the common duct of the bile and pancreatic ducts and the jejunal limb was performed intracorporeally following the duodenal resection. In the remaining patient, laparoscopic pancreas-sparing infra-ampullary duodenectomy was performed. Side-to-side anastomosis between the duodenal second portion and the jejunal limb was performed intracorporeally.

**Results:** In all patients, laparoscopic PSD could be successfully performed, as planned. In all three patients, the surgical margin was free of neoplastic change.

**Conclusions:** Laparoscopic PSD is minimally invasive, safe and feasible in selected patients with disease of the duodenum without pancreatic involvement. Conflict of Interest: We have no conflicts of interest or financial ties to disclose.

**V029**

**LAPAROSCOPIC ESOPHAGEOJEJUNOSTOMY WITH ROUX-EN-Y RECONSTRUCTION FOR CHRONIC FISTULA FOLLOWING SLEEVE GASTRECTOMY**

**Frederick Che, MD, Christopher S Armstrong, MD, FRCS, Ninh T Nguyen, MD, FACS; University of California Irvine Medical Center**

We present a case of a 38 year old female with a history of a sleeve gastrectomy for weight loss 10/14/10; which was complicated by a sleeve leak postoperatively. She was transferred to UCI Medical Center under our care where she required stent placements, and subsequently developed obstruction at the site of the stent, requiring laparoscopic stent removal. She had a persistent gastric leak and chronic left upper quadrant abscess over a period of 16 months.
She underwent further endoscopic attempts to control the fistula including, clipping and endoscopic injection of tissue adhesive material. These efforts failed and she was subsequently taken to the operating room on 9/21/12 where she underwent laparoscopic extensive lysis of adhesions, completion gastrectomy, and Roux-en-Y reconstruction with a handsewn esophagojejunostomy.

Vo30 LAPAROSCOPIC REVISION OF ROUX-EN-Y GASTRIC BYPASS FOR THE TREATMENT OF A COMPLEX GASTRO-GASTRIC FISTULA Axel F Beskow, MD, Agustin Duro, MD, Roberto E Remolo, MD, Alfredo Amenabar, MD, Fernando G Wright, MD, Demetrio Cavadas, MD; Hospital Italiano de Buenos Aires

A gastro-gastric fistula is a relatively rare complication after a Roux-en-Y gastric bypass (RYGB) for morbid obesity. It generally presents with abdominal pain and weight gain. Its management usually requires a multidisciplinary approach, where interventional endoscopy and surgery are included. We present a laparoscopic resolution of a gastro-gastric fistula in an obese patient with a prior RYGB at another institution, who started with abdominal pain and weight regain 2 years after the surgery. Both endoscopic and laparoscopic treatment failed in the attempt of closing the fistula. We decided to perform a definitive surgical treatment by doing a laparoscopic revision with resection of the gastric remnant and re doing of the gastrojejunostomy. Laparoscopic revision surgery with remnant gastrectomy appears to be a safe and effective surgical procedure for patients with complex gastro-gastric fistulas after RYGB.

Vo31 CONCOMITANT WEIGHT LOSS SURGERY AND DEFINITIVE HERNIA REPAIR Ainsley B Foshough, MD, Sunil Sharma, MD; University of Florida - Jacksonville

Introduction: The finding of a ventral hernia in a morbidly obese patient is not uncommon. The right approach in managing such patients is always debatable. Typically, weight loss surgery is performed first, and after adequate weight loss definitive repair of the hernia is performed. Combining the two operations subjects a patient to the risk of mesh infection as the surgery is then considered clean, to both decrease the risk of recurrence and re doing of the gastrojejunostomy. Laparoscopic revision surgery with remnant gastrectomy appears to be a safe and effective surgical procedure for patients with complex gastro-gastric fistulas after RYGB.

Vo32 ENDOSCOPIC REVERSAL AND BYPASS OF STRICTURED VERTICAL BANDED GASTROPLASTY Nathan E Conway, MD, Ashwin A Kurian, MD, Christy M D unst, MD, Lee L Swanstrom, MD, Kevin M Reavis, MD; The Oregon Clinic and Providence Cancer Center, Portland, OR

Background: Vertical banded gastroplasty (VBG) is a restrictive bariatric procedure performed by placing a prosthetic band through a stapled window in the stomach around the lesser curve creating a small proximal gastric pouch. Popular in the 1980s, this procedure can result in a fixed outlet obstruction over time which has traditionally been addressed with surgical reconstruction. More recently, endoscopic removal of eroded gastric bands and division of the bands has been demonstrated.

Methods: We present two patients with previous VBGs who presented with persistent nausea and vomiting. Both underwent preoperative workup demonstrating partial gastric pouch outlet obstruction. Endoscopic gastric band division was planned. For the first patient, needle knife and sphincterotome cautery divided the band and stricture. The band in the second patient was refractory to this approach, thus a dual endoscopic guided gastro-gastrostomy was fashioned using needle knife cautery and balloon dilatation with temporary stent reinforcement to bypass the obstruction.

Results: Postoperative swallow studies revealed restoration of gastric flow. The patients tolerated resumption of diet and are doing well 6 weeks following the procedures.

Conclusions: Endoscopic reversal of VBG is feasible and safe. Alternative action plans are necessary for cases refractory to the initially planned treatment.

Vo33 POEM WITH INCREMENTAL MYOTOMY AND INTRAOPERATIVE ENDOFLIP Ezra N Teitelbaum, MD, Nathaniel J Soper, MD, Eric S Hungness, MD; Northwestern University

This video shows a peroral esophageal myotomy (POEM) procedure with intraoperative assessment of esophagogastric junction (EGJ) distensibility using an endoscopic functional lumen imaging probe (EndoFLIP). In order to investigate the physiologic effect of variable myotomy lengths, we perform the myotomy proximal to the EGJ in 2cm increments and record an EndoFLIP measurement after each segment. The proximal 4cm of the myotomy is shown to have no effect on EGJ distensibility, whereas the distal 3cm of myotomy results in a greater than 3-fold increase in distensibility.

Vo34 Contemporary Flexible Endoscopic Management of Acute Esophageal Perforations Ahmed Sharata, MD, Ashwin A Kurian, MD, Christy M Dunst, MD, Kevin M Reavis, MD, Lee L Swanstrom, MD; The Oregon Clinic-GMIS Division, Providence Portland Cancer Center

We present a video on contemporary flexible endoscopic management of acute esophageal perforations. The NOTES experience has contributed to the development of new flexible endoscopic technologies that have facilitated the transformation of the endoscope into a truly therapeutic surgical tool. The experience of moving transluminally into various body cavities has facilitated surgeons to be more comfortable in applying surgical principles with the flexible endoscope.

Vo35 THE WIMAT COLONOSCOPY SUITCASE: A NOVEL POLYPECTOMY TRAINER James Ansell, Konstantinos Arnaoutakis, Stuart Goddard, Neil Warren, Jared Torkington; Welsh Institute for Minimal Access Therapy

The WIMAT colonoscopy suitcase is a novel, ex-ovo animal simulator designed to teach colonic polypectomy to trainee endoscopists. It has the capacity to simulate a range of polypectomy tasks and has been validated for skills training.
Posters of Distinction Abstracts

Poo1
Tissue Thickness Measurements from Excised Sleeve Gastrectomy Specimens

Logan Rawlins, MD
Melissa Rawlins, MPA, PAC, Donovan Teel, MD; Wright State University

Introduction: Laparoscopic Sleeve Gastrectomy (LSG) has become an increasingly common operation offered to morbidly obese patients seeking bariatric surgery. There is minimal basic science data regarding the thickness of transected stomach as the limits of smaller gastric sleeves are created closer to the lesser curvature. The purpose of this study is to determine the tissue thickness along the staple line and examine what factors (such as gender, location, and body mass index (BMI)) predispose to thicker tissue.

Methods: The study design was a single center, single surgeon, non-randomized, prospective study of patients undergoing LSG. The patients must not have had previous gastric or esophageal surgery. The initial staple firing was 4 cm from the pylorus and the sleeve was created over a 32 Fr bougie. Excised sleeve gastrectomy specimens, with patient consent, underwent tissue measurement at three specified locations: antrum 3 cm up from the greater curvature, midpoint of the entire staple line, and 1 cm down from the fundus closest to the gastroesophageal junction (Figure 1). A tissue thickness measuring device was utilized to acquire readings after a 15 second wait period at a tissue pressure of 8 g/mm2, the standard by which modern tissue staplers are read. Student’s t-test. Introduction of the procedure to positive reviews followed by initially glowing reviews by early adopters followed by studies questioning the outcomes followed by growing reports of failure and finally by abandonment. We are in the near final phase of the band today in 2012. Many feel the Sleeve is in the process of following the same course of initial enthusiasm to be followed in short order by failure with weight regain and severe reflux over time.

The MGB was initially greeted with misguided skepticism because of MGB associations with the Mason Loop and lack of knowledge of the literature on Bile Reflux. The leadership of the national organizations were critical of the MGB and blocked presentation of the MGB at national meetings.

In spite of the active attempts of the leadership in bariatric surgery to suppress the MGB insightful surgeons with the courage and bravery to look beyond the unfounded criticisms of the MGB surgeons around the world looked at the underlying physiology of the MGB and began the first tentative international steps to adopt the MGB. These brave surgeons who questioned the unfounded critiques of the MGB and instead spurred on by failure of the Vertical Banded Gastroplasty, the RNY and the Band began to investigate the MGB. International leaders like Cabello and Carbajo in Spain, Kular in India, Tacchino in Italy and Noun in Lebanon showed that with careful investigation the early claims of excellent success with the MGB were confirmed.

Now these pioneers have been joined by others around the world. Often with out support and occasionally with backbiting and criticisms these intrepid surgeons have followed the early adopters of MGB. These newer MGB surgeons’ research shows unequivocally that the good results of the MGB are confirmed.

Each of these failed procedures follow a depressingly similar script. Introduction of the procedure to positive reviews followed by glowing reviews by early adopters followed by studies questioning the outcomes followed by growing reports of failure and finally by abandonment. We are in the near final phase of the band today in 2012. Many feel the Sleeve is in the process of following the same course of initial enthusiasm to be followed in short order by failure with weight regain and severe reflux over time.

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In spite of the active attempts of the leadership in bariatric surgery to suppress the MGB insightful surgeons with the courage and bravery to look beyond the unfounded criticisms of the MGB surgeons around the world looked at the underlying physiology of the MGB and began the first tentative international steps to adopt the MGB. These brave surgeons who questioned the unfounded critiques of the MGB and instead spurred on by failure of the Vertical Banded Gastroplasty, the RNY and the Band began to investigate the MGB. International leaders like Cabello and Carbajo in Spain, Dr Wei J. Lee in Taiwan, LM Chevalier and Cady in France, Kular in India, Tacchino in Italy and Noun in Lebanon showed that with careful investigation the early claims of excellent success with the MGB were confirmed.

Now these pioneers have been joined by others around the world. Often with out support and occasionally with backbiting and criticisms these intrepid surgeons have followed the early adopters of MGB. These newer MGB surgeons’ research shows unequivocally that the good results of the MGB are confirmed. In Barcelona at the IFSCO-EC meeting 23 surgeons with experiences with over 13,000 MGBs reported uniformly good results.

After 15 years experience, numerous controlled prospective trials all confirming good results it appears that the MGB is rising to a recognized place in the list of acceptable bariatric surgical procedures. Even more intriguing is the possibility that the MGB may well come to be identified as the best of bariatric surgical procedures.

Table 2. BMI effect on thickness

<table>
<thead>
<tr>
<th></th>
<th>Antrum (A)</th>
<th>Midbody (M)</th>
<th>Fundus (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI &lt; 50</td>
<td>2.56 mm</td>
<td>2.44 mm</td>
<td>1.99 mm</td>
</tr>
<tr>
<td>BMI ≥ 50</td>
<td>2.89 mm</td>
<td>2.46 mm</td>
<td>2.06 mm</td>
</tr>
<tr>
<td>p=0.01</td>
<td>p=0.08</td>
<td>p=0.14</td>
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Table 1. Gender effect on thickness

<table>
<thead>
<tr>
<th></th>
<th>Antrum (A)</th>
<th>Midbody (M)</th>
<th>Fundus (F)</th>
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<tbody>
<tr>
<td>Female</td>
<td>2.64 mm</td>
<td>2.32 mm</td>
<td>1.94 mm</td>
</tr>
<tr>
<td>Male</td>
<td>2.06 mm</td>
<td>2.38 mm</td>
<td>2.09 mm</td>
</tr>
<tr>
<td>p=0.04</td>
<td>p=0.69</td>
<td>p=0.26</td>
<td></td>
</tr>
</tbody>
</table>
standing and severe symptoms of reflux, the odds ratios were 44 (95% c.i. 18 to 100) for esophageal adenocarcinoma."

Studies reporting a growing rate of GER with the band and sleeve include:
- LeBlanc (3) showed that 47.2% had persistent GERD symptoms.
- Weiner (4) showed that 15% of sleeve patients had severe gastroesophageal reflux requiring conversion to RNY.
- Gutschow (5) performed Upper gastrointestinal endoscopy patients after 30.1 months (range, 5-67 months), showing a high prevalence of esophagitis (30%).
- Himpps (6) showed that GERD occurred after 1 year in 22% of patients with Sleeve and after 3 years in 21% of patients with the Band.

Finally several cases of esophageal cancer after Band have been reported.

**Conclusions:**
1. Acid reflux unequivocally has been shown to be a "strong causative factor in esophageal cancer."
2. Restrictive procedures (sleeve and band) cause increasing rates of gastroesophageal reflux over time of follow up.
3. Not unexpectedly, cases of esophageal cancer are being reported after the band.
4. Surgeons should consider warning their band and sleeve patients that the band and the sleeve may result in esophageal cancer.


**Poo5**

**WEIGHT REGAIN DOES NOT IMPACT REMISSION OF DIABETES AFTER GASTRIC BYPASS**

**Introduction:** Surgical treatment of morbid obesity leads to weight loss and remission of diabetes in most patients with type 2 diabetes mellitus (T2DM). Long term weight regain is seen in a subset of patients, but little is known regarding its relationship to remission.

**Methods:** Between March 2003 and December 2009, 652 patients underwent laparoscopic roux-en-y gastric bypass (LRYGBP) at our institution. We retrospectively evaluated demographics, weight at all follow-up points, hemoglobin A1C levels, and medication lists.

**Results:** T2DM was seen in 170 of the 652 patients (26.1%) preoperatively. Mean duration of follow-up after surgery was 2.88 years. 82.7% of patients with T2DM at the time of surgery were in remission at last follow-up. Average maximum excess weight loss (EWL) was 77.1%. Weight regain occurred in 66.7% of patients and averaged 19.1% of maximum EWL. Remission of T2DM after remission occurred in 5.8% of patients. These patients had significantly longer duration of T2DM (12.3 vs 6.0 years) and more commonly used insulin (75% vs 18%) than patients without remission. Maximum %EWL and weight regain were not significantly different between groups.

**Conclusions:** Weight regain after LRYGBP is common, but not associated with remission. Remission of T2DM after remission is seen in 5.8% of patients, and is associated with longer duration of T2DM and insulin use. Early surgical intervention for morbidly obese patients with T2DM should be recommended to maximize remission rates.

**Poo6**

**A retrospective study on the pre-operative medical and psychological predictors of “successful” and “unsuccessful” post-bariatric surgery patients**

**Introduction:** Post-bariatric surgery patients at the University of Hawaii’s John A. Burns School of Medicine, Department of Surgery at Queen’s Medical Center.

**Objective:** We are conducting a retrospective study to determine the pre-operative medical and psychological predictors of “successful” and “unsuccessful” post-bariatric surgery patients. Successful weight loss after RYGB/LRYGB is defined as ≥ 20% EWL at one year. Unfortunately 15-20% do not reach this benchmark [1]. Long-term failure rates of RYGB/LRYGB have been reported to be as high as 20-35% [2]. Given the significant medical, psychological, and financial impact bariatric surgery has for obese patients, it is critical to be able to pre-operatively identify patient factors associated with successful long-term weight loss to.
guide patient selection and management for those at risk for weight loss failure. The objectives of the study are to develop profiles of three %EWL classes (those achieving >80% EWL, 50-80% EWL, or <50% EWL) and compare variables that may be implicated in long-term post-operative weight loss, including demographics, co-morbidities, psychiatric history, and Beck Depression Inventory-II (BDI-II) questionnaire scores.

**METHODS DESCRIPTION:** This is a retrospective case series study based at a bariatric center on Oahu, Hawaii involving patients who underwent RYGB/LRYGB surgery from January 1, 2006 to December 31, 2009 and had post-operative follow-up for at least two years. All surgical candidates were evaluated by the center’s bariatrician, psychologist, dietician, and surgeon, using medical interviews/exams and patient-reported questionnaires including the BDI-II. Patients were treated to medically optimize medical conditions that could interfere with post-operative outcomes. Approximately 400 candidates underwent RYGB/LRYGB, of which 185 patients had valid pre-operative BDI-II questionnaires and had at least two years of post-operative follow-up. We included both genders, all age groups, and all ethnicities. We excluded patients who were not from Oahu island. Study variables included patient demographics (e.g. gender, age, educational level), biometrics (e.g. measured weight, height; calculated BMI and %EWL), pre-operative medical co-morbidities, pre-operative psychiatric diagnoses, and scores for each answered question on the BDI-II. To analyze each BDI-II question, we conducted an exploratory factor analysis and proposed a three-factor model derived from the questionnaire to result in three independent variables for comparison. We stratified each patient according to their %EWL measured at the two-year post-operative follow-up visit in three %EWL classes: >80% EWL, 50-80% EWL, or <50% EWL. We compared our three %EWL study groups by each recorded variable with chi-square, ANOVA, and logistic regression analyses to determine possible significant factors.

**CONCLUSIONS/EXPECTATIONS:** At the conclusion of our study, we expect to achieve the following:

1. Identify the pre-operative medical and psychological characteristics that impact outcomes for post-RYGB/LRYGB patients.
2. Develop a profile of predictive “successful” and/or “unsuccessful” factors for long-term weight loss following RYGB/LRYGB.

We aim to use these findings to help individualize pre- and post-operative efforts to optimize a patient’s chance of achieving and maintaining long-term successful weight loss after bariatric surgery.

**REFERENCES:**


**Poo7**

**Effect of Bariatric Surgery on Oncologic Outcomes: A Meta-Analysis**

**Purpose:**

To assess the impact of weight loss following bariatric surgery on cancer risk.

**Methods:**

A comprehensive literature search was conducted using PubMed/MEDLINE and Embase from the inception of both databases to January 2012. Inclusion criteria incorporated all human studies examining oncologic outcomes following bariatric surgery. Two authors independently reviewed selected studies and relevant articles from their bibliographies for data extraction, quality appraisal, and meta-analysis.

**Results:**

Six observational studies (*N* = 51,740) comparing relative risk (RR) of cancer in obese patients undergoing bariatric surgery versus obese controls were analyzed. Overall, the RR of cancer in obese patients after undergoing bariatric surgery is 0.55 (95% CI: 0.41–0.73, *P* < 0.0001, I² = 83%). The effect of bariatric surgery on cancer risk is modified by gender (P = 0.021). When stratified by gender, the pooled RR in females is 0.68 (95% CI: 0.60–0.77, *P* < 0.0001, I² = 0.1%) while in males is 0.99 (95% CI: 0.74–1.32, *P* = 0.937, I² = 0.1%).

**Conclusions:** Our results suggest that bariatric surgery reduces cancer risk and mortality in formerly obese patients. When stratifying our meta-analysis by gender, the effect of bariatric surgery on oncologic outcomes is protective in women but not in men.

**Poo8**

**“Candy cane” Redundant Roux Syndrome after Gastric Bypass**

**Background:**

Bariatric surgery remains a prevalent option for the surgical management of obesity and its comorbidities. A redundant length of roux limb also known as the “candy cane” limb may produce vague symptoms that are difficult to diagnose and manage.

**Clinical Case:**

A 54 year old man with a BMI of 35.3 with comorbidities including diabetes, hypertension, obstructive sleep apnea, and degenerative disc disease underwent a laparoscopic roux en y gastric bypass in antecolic antegastric fashion with a linear stapled and handsown gastrojejunostomy anastomosis. The small bowel mesentery was closed with 3-0 silk. He presented a year later having lost 100 lbs with acute abdominal pain. There was concern for an internal hernia. He was explored laparoscopically, and the distal small bowel was reduced from Peterson’s defect. The bowel was dilated proximal to the jejunojunostomy and the Peterson’s defect was closed. He presented a month and a half later with persistent nausea and vomiting after eating meals. An upper gi series with multiple oblique views revealed a dilated redundant “candy cane” roux limb which was not apparent on prior imaging. On exploration, there was preferential entry of the orogastric tube into the “candy cane” limb. A 35 cm blind limb was resected by loosely abutting a 34 Fr GOG with a linear cutting stapler. The patient had complete relief immediately postoperative and at six month follow up.

**Conclusion:**

A redundant “candy cane” roux limb may cause persistent nausea, vomiting, and early satiety. Limiting the length and orienting the roux limb to aid in gravity drainage at the initial operation may prevent this syndrome. Careful review of imaging with an experienced radiologist in real time with additional obliquely angled views may help diagnose this rare complication.

**Poo9**

WITHDRAWN

**Poo10**

**Extraction of gastric remnant during a laparoscopic sleeve gastrectomy without an extraction bag**

**Background:**

Gastric sleeve surgery has become increasingly popular as a stand-alone bariatric procedure over the past decade. Many bariatric surgeons use an extraction bag for extraction of the gastrectomy specimen with the theoretical benefit of decreased wound infection rate at the extraction site. There is limited data to support this practice, yet the device adds cost and time to the operation. The high volume...
Introduction: The characteristics for the ideal pelvic surgery include, minimal morbidity and mortality, minimal trauma to the patient, good optical visualization, minimal blood loss, and preservation of physiologic function. These goals become more challenging in the re-operative pelvis, the narrow male pelvis and distal rectal pathology. Our group pioneered transanal minimally invasive surgery (TAMIS), which was initially described as an advanced platform for high-quality local excision of rectal neoplasms, but we have evolved this technique to pelvic dissection which gives an excellent option for these difficult cases including total mesorectal excision.

Hypothesis: We hypothesize that TAMIS bottom up technique is a safe and effective minimally invasive option for difficult and routine pelvic resections including TME and J-pouch excision.

Methods: We retrospectively reviewed data from a prospectively maintained database of a single colorectal surgery practice to identify all patients who had transanal minimally invasive surgery (TAMIS) for total mesorectal excision, pelvic excision of ileal J-pouch and previous coloanal anastomosis. Cases were performed with standard laparoscopic instruments, cameras and single port transanal platforms. Patient data including demographics, intra-operative details, perioperative morbidity and mortality and post-operative data were examined.

Results: 9 patients (men=4) underwent TAMIS bottom up pelvic dissection (TME=5 and Pelvic excision=4). Average age was average 53.20y (31-65y). Average BMI was 26.4 (18-28.5). 6 patients were treated for malignancy (5=rectal i=cervical), UC n=2, crohns n=1. 5 patients received concomitant preoperative 5 FU based chemotherapy and radiation. OR time was 250min (172-450*combined with gyn). Mean EBL was 224cc (100-400cc). Specimen nodal harvest average 21.5 (9-44). All 6 TME were complete. There were no mortalities. Morbidity rate was n=1 crohn’s patient with superficial wound infection. LOS 4.6days (2-9). Follow up is 6.8 months (1-22).

Conclusion: Advances in minimally invasive surgical procedures have led us to explore less traumatic and more effective techniques to handle difficult pelvic pathology. This review demonstrates the feasibility, accessibility, and quality outcomes for a novel minimally invasive transanal surgical technique with retrograde pelvic dissection. The TAMIS bottom up dissecting technique can be easily adapted by surgeons who are capable of advanced laparoscopic surgery to operate in the difficult pelvis. Long-term oncological and functional data will need to be examined as the increased utilization of this technique is applied. TAMIS will continue to mature as a viable option for the surgical treatment of the complex pelvis in colorectal surgery.
Posters of Distinction Abstracts

**Po14**
The role of laparoscopy on circumferential resection margin positivity in patients with rectal cancer: Long term outcomes of a single high volume institution

Ahmet C Dural, MD, Metin Keskin, MD, Emre Balik, MD, Murat Akici, MD, Enver Kunduz, MD, Oktar Yamaner, MD, Oktar Asoglu, MD, Mine Gulluoglu, MD, Dursun Bugra, MD; Istanbul University School of Medicine, General Surgery Department, Istanbul, Turkey; Istanbul University School of Medicine, Department of Pathology, Istanbul, Turkey

**Background:** Circumferential resection margin (CRM) is one of the main prognostic factors in rectal cancer. The aim of this study was to evaluate the influence of the laparoscopic rectal cancer surgery on CRM involvement.

**Methods:** The medical records of 579 patients who underwent laparoscopic or open resection for rectal cancer from October 2002 to August 2008 were reviewed. Primary endpoint was CRM status. Secondary endpoints were local recurrence rate, overall and disease free survival.

**Results:** Laparoscopic resections performed in 266 patients (45.5%), while the rest underwent open surgery (n=313 (54.5%) resection. Sphinicter preserving surgery was performed in 374 patients (64.5%), (74.7%) laparoscopic vs 53.6% open). The demographic data of the two groups were similar. The operative time of the laparoscopic group was significantly longer (p<0.001), whereas postoperative recovery was significantly better than the open surgery group in terms of oral intake and shorter hospital stay (p<0.001 and p<0.001 respectively). Only 32 (5.5%) patients were found to had CRM involvement. Rates of CRM involvement were similar between laparoscopic and open groups (5.6% vs. 5.4%) respectively. T and N stages of the tumors were directly correlated with CRM involvement (p=0.003 and p=0.0025, respectively). The mean follow-up period was 58.9 months (48-127 months). The incidence of local recurrence for CRM negative group was 8.2% (8.1% laparoscopic vs. 8.3% open), while local recurrence rate was 34.3% for CRM positive group (50% laparoscopic vs. 47% open). This difference in local recurrence rate between two groups might be associated with selecting suitable patients for laparoscopy during the learning curve period. CRM positivity was highly correlated with the local recurrence (p<0.001). The 5-year survival for CRM negative patients was 71.7% (74.9% laparoscopic vs. 68.5% open). The 5-year survival for CRM positive patients was 53.1% (66.7% laparoscopic vs. 41.2% open). CRM positivity was correlated with the 5-year survival and the 5-year disease free survival (p=0.009 and p=0.001 respectively).

**Conclusion:** Laparoscopic surgery for colorectal cancer is widely accepted due to its benefits of earlier recovery and shorter hospital stay. Similar CRM involvement and survival rates with laparoscopic resection have been recently reported with the increase in technical skills. Optimal postoperative clinical results can be obtained with surgeons who have adequate experience of colorectal surgery and laparoscopic skills.

**Po15**
**IMPACT OF SPLENIC FLEXURE MOBILIZATION IN LAPAROSCOPIC COLECTOMY.**

A Sánchez Ruiz, MD, E Grzonka, MD, M Bun, MD, A Canelás, MD, M Laporte, MD, C Peczan, MD, N Rotholz, MD; Colorectal Surgery Division - Hospital Alemán de Buenos Aires. Argentina

**BACKGROUND:** Routine mobilization of the splenic flexure (SMF) for left colectomy and its variants is controversial. The pros are getting adequate surgical specimen; to retrieve sufficient lymph nodes and minimize the incidence of anastomotic leak. The cons are that increases the complexity of the procedure and the operating time.

**Objective:** The aim of this study was to evaluate the impact of the (SMF) and to identify predictive factors that predispose its realization.

**DESIGN:** Retrospective analysis of a prospective database.

**MATERIAL AND METHODS:** A retrospective analysis based on a prospective database was performed on all patients operated between June 2000 to May 2012. All patients who underwent procedures that could potentially require MSF were included. The series was divided into three groups: left colectomy (L); sigmoidectomy (S) and anterior resection (LAR). Turn these groups were subdivided in those where the SFM wasn’t necessary (CI1; CI2), those where the SFM who performed (C2; S2; R2). Surgical time; complications rate; anastomotic leak rate; hospital length of stay; intestinal recovery; number of lymph nodes retrieved; and length of the specimen were the variables analyzed between the groups. The variables analyzed as predictors for MSF: age, sex, BMI ≥ 30 and a 2 ASA.

**RESULTS:** 1076 laparoscopic colon surgeries were performed in period of the time analyzed. Of these, 95 were procedures with potential MSF. In 359 (66,5%) of cases the SFM was not performed. Subgroups were distributed as follows: CI1: 161 (27.1%); S1: 326 (55%); LAR1: 106 (17.9%); CI2: 118 (73%); S2: 69 (21.3%); and LAR2: 47 (44.3%). When CI group was analyzed subgroup 2 had a longer operative time (CI1vsCI2: 165vs214 min, p = <0.05); higher number of intraoperative complications (CI1vsCI2: 2.9 vs 1.8); fewer lymph nodes retrieved (CI1vsCI2: 17vs14, 8, p = <0.05) as well as increased length of the specimen (CI1vsCI2: 21 vs 25.7 cm, p = <0.05). There were no differences in the anastomotic leak rates. In the S group, only longer operative time was found in subgroup 2 (S1vsS2: 142vs192 min, p = <0.05). LAR2 had longer operative time (LAR1vsLAR2: 192vs 242 192 min, p = <0.05); longer length of stay (LAR1vsLAR2: 4.4 vs 6.8 days, p = <0.05); longer time for oral tolerance (LAR1vsLAR2: 1.5 vs. 2.7 days p = <0.05); bigger length of specimen (LAR1vsLAR2: 18.6vs22, 5 cm, p = <0.05); but the number of lymph nodes removed was lower (LAR1vsLAR2: 16.5vs14, 6, p = <0.05). There were no difference in the rate of dehiscence. BMI≥ 30 was the only independent predictive factor to avoid the SFM into the three groups (p = <0.05).

**CONCLUSIONS:** SFM increases surgical time and intraoperative complications without reducing the risk of anastomotic leak. Based on these findings SFM should not be carried out routinely.

**Po16**
**Magnetic Resonance Enterography versus Computerized Tomography in Patients with Crohn’s Disease Undergoing Resection: does MRE provide the tipping point?**

Maria Sophia S Villanueva, MD, Deirdre C Kelleher, MD, Kirthi Kolli, MBBS, James D McFadden, MD, Anjali S Kumar, MD, MPH; MedStar Washington Hospital Center - Section of Colon and Rectal Surgery, Department of Surgery and Department of Radiology and Nuclear Medicine, Washington, DC, USA

**INTRODUCTION:** Patients with Crohn’s disease often experience cycles of acute attacks with periods of quiescence or chronic low grade disease. When patients become symptomatic, it is often difficult to tell whether the disease is amenable to medical management or if surgical intervention is required. These patients frequently get a gamut of tests in order to arrive at the correct diagnosis.

Magnetic Resonance Enterography (MRE) has emerged as a highly sensitive and potentially safer alternative to Computed Tomography (CT) scanning for determining the extent and type of disease (inflammation versus stricture). In this study, we aimed to identify the radiological imaging studies received by patients who underwent surgery for Crohn’s, and whether MRE offers more definitive benefit in surgical planning over CT.

**METHODS and PROCEDURES:** We conducted a retrospective review of patients with Crohn’s disease who underwent intestinal surgery at our institution during a 4-year period (2006-2010). We reviewed, CTs, MREs, and operative reports to find trends. McNemar’s test was run to detect marginal homogeneity between CT and MRE. MRE is acquired after oral intake of water with psyllium to distend the small bowel prior to examination (2 teaspoons of psyllium/450 cc of water, repeated four times over a three hour period). 1.0 mg IV
Posters of Distinction Abstracts

**Po17**

**Optimizing Cost and Short-term Outcomes for Elderly Patients in Colorectal Surgery**

Deborah S Keller, MD, Justin K Lawrence, MD, Glenn Hall, MD, Tamar Nobel, BS, Conor P Delaney, MD, MCh, PhD; University Hospitals-Case Medical Center

**Purpose:** Elderly patients are often regarded as high-risk for major abdominal surgery because of a lack of functional reserve and associated medical comorbidities. This study evaluates whether elderly patients managed with laparoscopic colorectal (LC) surgery and an enhanced recovery protocol (ERP) can attain the reduced hospital stay and resource utilization of younger patients.

**Methods:** Elective LC patients between 2008 and 2012 were identified from a prospective departmental database. Patients were stratified into elderly (>70 years old) and non-elderly (<70 years old) cohorts; all followed a standardized ERP and discharge criteria. The main outcome measures were hospital costs, hospital length of stay, discharge disposition, and 30-day readmission rates. Statistical analysis was performed with Student's t-test or Fisher's exact test, where appropriate.

**Results:** 455 patients met inclusion criteria for the analysis, of whom 153 were elderly (34%). The elderly cohort had a significantly higher ASA class (2.58 ± 0.53 vs. 2.24 ± 0.54, p = < 0.0001), Charlson Co-morbidity Index (0.71 ± 0.96 vs. 0.41 ± 0.95, p = .0015), and lower BMI (26.91 ± 5.46 vs. 28.50 ± 6.20, p = .0067) than the non-elderly group. Both groups had similar procedure time (p = 0.2377), blood loss (p = 0.2307), and intra-operative complications (p = 1.000). Significantly more elderly patients required home care services (12.4% vs. 6.6%, p = 0.0313) or temporary nursing facility care (5.2% vs. <1%, p = 0.0033).

There were no significant differences in length of stay (4.91 vs. 4.47 days, p = 0.4565), 30-day readmission rates (5% vs. 6%, p = 0.8248), or costs for the episode of care (p = 0.5479) between groups.

**Conclusions:** Our results show that combining LC with an ERP is cost-effective and results in similar short-term outcomes for elderly and non-elderly patients. Despite higher co-morbidities, elderly patients realized the same benefits of shorter hospital stay with similar hospital costs and readmission rates.
Poster Listing

Po018 OPTIMIZING WORKING SPACE IN LAPAROSCOPY: THE EFFECT OF PRE-STRETCHING OF THE ABDOMINAL WALL IN A PORCINE MODEL
John Vlot, MD, Rene Wijnen, Prof, Robert Jan Stolker, Prof, Klaas Bax, Prof, Erasmus MC Sophia, Deps. of Pediatric Surgery and Anesthesiology

Po019 SINGLE-INCISION LAPAROSCOPIC COLECTOMY FOR COLON CANCER: SINGLE INSTITUTIONAL EXPERIENCES WITH 117 CASES.
Yasumitsu Hirano, PhD, Masakazu Hatthori, PhD, Kenji Bouden, PhD, Yasuo Hashizume, PhD; Fukui Prefectural Hospital

Po020 A RISK PREDICTION MODEL FOR SYNTHETIC MESH REMODELING AND COLLAGEN DISTRIBUTION AFTER ABDOMINAL WALL RECONSTRUCTION: AN ANALYSIS OF EXPLANTS BY HOST CHARACTERISTICS AND SURGICAL SITE CLASSIFICATIONS.
Jaime A Cavallo, MD, MPH, Andres A Roma, MD, Jingxia Liu, PhD, Jenny Ousley, BS, Jennifer Creamer, MD, Sara Baalman, MA, Margaret M Prissella, RN, Brent D Matthews, MD, Corey R Deeken, PhD; Section of Minimally Invasive Surgery, Department of Surgery, Washington University School of Medicine; Division of Biostatistics, Washington University School of Medicine; Department of Anatomic Pathology, Cleveland Clinic

Po021 CHARACTERISATION OF MUCO-ADHESIVE POLYMER FILMS FOR RETRACTION OF BOWEL AND OTHER SOLID ORGANS.
Z Wang, PhD, L Tai, PhD, D McLean, S Brown, PhD, E Wright, PhD, G J Florence, PhD, P André, PhD, A Cuschieri, MD, PhD; Universities of Dundee and St Andrews, UK

Po022 NON-ABLATIVE RADIOFREQUENCY (RF) APPLICATION TO SMOOTH MUSCLE OF INTERNAL ANAL SPHINCTER (IAS) - A TISSUE STUDY.
Roman M Herman, Professor, **Dorota Talerbo, MD, PhD; Department of Surgery, Kinki University Faculty of Medicine, Osaka, Japan

Po023 IMPROVED INSULIN SENSITIVITY AFTER GASTRIC BYPASS CORRELATES WITH DECREASED TOTAL BODY FAT, BUT NOT WITH CHANGES IN FREE FATTY ACIDS.
Lawrence Tabone, MD, Khoa Chin Meng, MD, Philip Omotosho, MD, Alfonso Torquati, MD, MSCI; Duke University, Department of Surgery

Po024 SINGLE INCISION LAPAROSCOPIC SURGERY (SILS) FOR CHOLECYSTECTOMY USING STANDARD LAPAROSCOPIC INSTRUMENTATION: ADVANTAGES AND BENEFITS OF A NEW SURGICAL TECHNIQUE.
Anibal J Rondon, MD, Gabriela E Centurion, MD, Natalia E Bongiov, MD, Mariano Gimenez, MD, Alberto E Montes, MD, FACS; Hospital Asociado UBA Dr Carlos A Bocalandro

Po025 LAPAROSCOPIC TREATMENT OF RECTAL CANCER: OUR EXPERIENCE IN A GOVERNMENT TERTIARY CARE HOSPITAL.
Manash Ranjan Sahoo, Anil Kumar T, POST, GRADUATE; SCB MEDICAL COLLEGE, CUTTACK, ODISHA, INDIA

Po026 COLORECTAL INTUSSUSCEPTION DUE TO AN INFLAMMATORY FIBROID POLYP MANAGED LAPAROSCOPICALLY: A RARE CASE REPORT.
Manash Ranjan Sahoo, Anil Kumar T, POST, GRADUATE; SCB MEDICAL COLLEGE, CUTTACK, ODISHA, INDIA

Po027 STAPLED HEMORRHOIDOPEXY FOR INTERNAL HEMORRHOIDS REFRACTORY TO HEMORRHOIDAL BANDING.
Anjani Thakur, MD, Spencer W Levesque; Valley Vein Health Center

Po028 OUTCOMES OF ELECTIVE SINGLE-STAGE LAPAROSCOPIC TOTAL AND PARTIAL COLECTOMIES.
Sherazuddin Qureshi, MD, MA, Brittany Potz, MD, MA, Meridith Chan, BA, Ashar Ata, MBBS, MPH, Brian T Valerian, MD, Edward C Lee, MD; Department of Surgery, Albany Medical College

Po029 CLINICAL OUTCOMES OF LAPAROSCOPIC COLECTOMY FOR SYNCHRONOUS MULTIPLE COLON CANCER.
Yoshimasa Yatsuoka, MD, Hirohiko Sakamoto, MD, Yoschi Tanaka, MD, Yoji Nishimura, MD, Kiwamu Akagi, MD; Saitama Cancer Center

Po030 - WITHDRAWN

Po031 EARLY DISCHARGE AFTER LAPAROSCOPIC APPENDICECTOMY FOR COMPLICATED APPENDICITIS: IS IT SAFE?
Olga La Manna, MD, Yves Benavides, MD, FRSCC, FACS, MSc, Pierre Drolet, MD, Madeleine Poirier, MD, Margaret Henri, MD, Jean-François Latulipe, MD, Michel Morin, MD, Maisonneuve-Rosemont Hospital, affiliated with University of Montreal

Po032 COLON CLEANSING IN PATIENTS WITH PREDICTORS OF A POOR BOWEL PREPARATION: AN ANALYSIS OF THE SEE CLEAR II STUDY.
Michael Epstein, MD, Nav K Grandhi, MD, Phillip O Katz, MD, Douglas K Rex, MD; Digestive Disorders Associates, Gastroenterology Research Consultants of Greater Cincinnati, Albert Einstein Healthcare Network, Indiana University School of Medicine

Po033 EFFECT OF CONTINUING YOGA PRACTICE ON THE ADVERSE PATIENT REPORTED OUTCOMES FOLLOWING STAPLED TRANS-ANAL RESECTION OF THE RECTUM (STAR) FOR OBLITERATED DEFECATION SYNDROME (ODS).
Nayan Agarwal, Mr, Satish Saluja, MD, Brij B Agarwal, MD, Shrut Sharma, Dr, Kamran Ali, Dr, Karon Goyal, Dr, Himanshu Pandey, MD; University College of Medical Sciences, Sir Ganga Ram Hospital, and Dr. Agarwals Surgery

Po034 LAPAROSCOPIC INTERSPHINCTERIC RESECTION USING NEEDLE-COUPLED IMPROVED-THAT TASHIRO.
Hirosi Okazawa, MD, Masaya Kawai, MD, Kazuhiro Takehara, MD, Yoshihiko Tashiro, MD, Koichiro Niwa, MD, Kiichi Nagayasu, MD, Shun Ishiyama, MD, Kiichi Sugimoto, MD, Makoto Takahashi, MD, Yutaka Kojima, MD, Michitohsi Goto, MD, Yuichi Tomiki, MD; Department of Coloproctological Surgery, Juntendo University Faculty of Medicine, Tokyo, Japan

Po035 IS THERE AN OPTIMUM FOR PATIENTS WITH T2-3 RECTAL TUMORS?
Maria Mora Pinzon, MD, Amanda B Francescatti, BA, Theodore J Saclarides, MD; Rush University Medical Center, Loyola University Medical Center, indiana University School of medicine

Po036 LAPAROSCOPIC LEFT COLONIC RESECTION - HOW TO PERFORM IT IN OUR INSTITUTE?
Kazuki Ueda, MD, Koji Daito, MD, Fumiaki Sugihira, MD, Tadato Tokoro, MD, Haruhiko Imamoto, MD, Jin-ichi Hida, MD, Kiyotaka Okuno, MD; Department of Surgery, Kinki University Faculty of Medicine

Po037 DUAL-PORTS LAPAROSCOPY-ASSISTED ANTERIOR RESECTION COMPARED WITH CONVENTIONAL LAPAROSCOPIC-ASSISTED ANTERIOR RESECTION FOR RECTAL CANCER.
Shigenori Homma, MD, N Minagawa, MD, T Shimokuni, MD, H Sakihama, MD, N Takahashi, MD, A Taketomi, MD, Prof; Hokkaido University Hospital, Department of Gastrointestinal Surgery 1, Sapporo, Japan

Po038 PILOT STUDY EVALUATING THE EFFICACY OF ALLOMMEMM IN PREVENTION OF INTRANEPITHELIAL ADHESIONS AND PERINEAL REGENERATION AFTER LOOP ILEOSTOMY.
Deborah S Keller, MD, Brad J Champagne, MD, Sharon L Stein, MD, Bridget O Ermich, RN, MSN, Conor P Delaney, MD, MCh, PhD; University Hospitals-Case Medical Center

Po039 STAPLED TRANS-ANAL RECTAL RESECTION FOR OBLITERATED DEFECATION SYNDROME: THREE YEAR RESULTS OF THE FIRST ASIAN EXPERIENCE.
Brij B Agarwal, MD, Shrut Sharma, Dr, Nayan Agarwal, Mr, Kamran Ali, Dr, Karan Goyal, Dr, Krishna A Agarwal, Mr, Satish Saluja, MD, Himanshu Pandey, Dr Ganga Ram Hospital, Dr Agarwals Surgery.

Po040 MANAGEMENT OF THE ACUTE APPENDIX MASS: A SURVEY OF IRISH SURGICAL PRACTICE.
Muhammad Irfan, Mr, Am Hogan, R Gately, A Lowery, W Khan, R Waldron, K Barry; Dept of Surgery, Mayo General Hospital, Castlebar, Co Mayo.

Po041 DOES A COMBINATION OF “LIGATION OF INTERSPHINCTERIC FISTULA TRACT” WITH “VIDEO ASSISTED FISTULA TRACTSurgery” OFFER A MINIMALLY INVASIVE CURE FOR FISTULA IN ANO?
Dinesh Shah
Sanjay Dhandharia, MD, Brij B Agarwal, MD; Files Clinic Jaipur, Shri sai krupa hospital, Blaspur Dr. Agarwal’s Clinic, New Delhi, India.

P042 SINGLE PORT VS STANDARD LAPAROSCOPIC RIGHT COLECTOMY: RESULTS OF A CASE MATCH STUDY ON 100 PATIENTS

Luigi Boni, MD, FACS, Sebastiano Spampatti, MD, Elisa Cassinotti, MD, Giulia David, MD, Alessandro Marzorati, MD, Stefano Rausei, MD; Minimally Invasive Surgery Center , University of Insubria

P043 SHORT-TERM RESULTS OF LAPAROSCOPIC RESECTION WITH SINGLE PORT ACCESS PLUS NEEDLE PORT FOR COLON CANCER

Atsushi Kohyama, MD, Masaaki Ito, MD, Masanori Sugito, MD, Akikiko Kobayashi, MD, Yusuke Nishizawa, MD, Norio Saito, MD; Colo Rectal and Pelvic Surgery Division, Department of Surgical Oncology, National Cancer Center Hospital East

P044 SOLITARY CAECAL DIVERTICULITIS: MULTIPLE DILEMMAS IN THE RIF

Renol Mathew Koshy, MS, DNB, Abdulrehman Abusaeib, FRCS, Mohammed Rizwan, MS, Mohammed Khairat, FRCS; HAMAD GENERAL HOSPITAL, DOHA, QATAR.

P045 PROSPECTIVE COMPARISON BETWEEN REDUCED PORT LAPAROSCOPIC ANTERIOR RESECTION AND USUAL PORT ONE FOR S. COLON CANCER AND RECTAL CANCER

Koji Hattori, MD, PhD, Keiichiro Ohta, MD, Shonen Kamakura; Kosei Hirakawa; Osaka City University Graduate School of Medicine

P046 ROBOTIC TRANSANAL ENDOSCOPIC MICRO-SURGERY: TECHNICAL DETAILS FOR THE LATERAL APPROACH

Nicolas C Buchs, MD, Francois Pugin, MD, Francisco Volonte MD, Philippe Morel, MD, Frederic Ris, MD; University Hospitals of Geneva

P047 SURGICAL AND ENDOSCOPIC MANAGEMENT OF COLON DIARRHEA DISEASE - SYSTEMATIC REVIEW

T Maheswaran, MD, P C Munipalle, D Light, T Garud; Dept. of General Surgery, Friargate Hospital, Northallerton

P048 PREDICTIVE FACTORS OF CONVERSION IN LAPAROSCOPIC COLORECTAL SURGERY. ANALYSIS FROM 1090 CASES.

F Carballo, MD, M Laporte, MD, E Grzona, MD, A Canelas, MD, M Bun, MD, C Pezcan, MD, N Rotholtz, MD; Colo Rectal Surgery Division - Hospital Alemán de Buenos Aires. Argentina

P049 ALTERATIONS OF RESPIRATORY PERFORMANCE USING NEW CELLULOSE SPONGE (ENDORASER®) DURING LAPAROSCOPIC COLORECTAL SURGERY

Hisashi Nagahara, Kiyoshi Maeda, Hiroshi Otani, Eiji Noda, Masatsune Shibutani, Kenji Sugano, Katsunosuke Naomi, Naoshi Kubo, Hiroaki Tanaka, Kazuya Muguruma, Masaichi Ohira, Kosei Hirakawa; Osaka City University Graduate School of Medicine

P050 RESECTION OF AN ADVANCED INVASIVE TUMOR OF THE TRANSVERSE COLON - VIDEO

Setelio S Rua, md, Alfredo Pinto, md; hospital litoral alentejano

P051 POSTOPERATIVE ILEUS PREDICTIVE FACTORS AFTER LAPAROSCOPIC COLORECTAL SURGERY.

Esteban Grzona, MD, F Carballo, MD, M Bun, MD, A Canelas, MD, M Laporte, MD, I Pereyra, MD, C Pezcan, MD, N Rotholtz, MD; Colo Rectal Surgery Division - Hospital Alemán de Buenos Aires. Argentina

P052 DOES TUMOR LOCATION AFFECTS THE RESULTS IN LAPAROSCOPIC COLECTOMY?

Esteban Grzona, MD, H Gaspari, MD, F Carballo, MD, A Canelas, MD, M Bun, MD, M Laporte, MD, C Pezcan, MD, N Rotholtz, MD; Colo Rectal Surgery Division - Hospital Alemán de Buenos Aires. Argentina

P053 DOES SIGMOIDECTOMY FOR RECURRENT DIVERTICULITIS HAVE AN IMPACT ON PATIENT’S QUALITY OF LIFE?

A Campos, MD, Esteban Grzona, MD, F Carballo, MD, M Maya, MD, A Canelas, MD, M Laporte, MD, M Bun, MD, C Pezcan, MD, N Rotholtz, MD; Colo Rectal Surgery Division – Hospital Alemán de Buenos Aires. Argentina

P054 LAPAROSCOPIC SURGERY FOR RECTAL CANCER - AN EARLY EXPERIENCE FROM PAKISTAN

Shaiq Abdul Razzaque, Liaquat University of Medical Health Sciences Jamshoro Pakistan

P055 LAPAROSCOPIC COLETFOMY WITH INTRACOPEAL ANASTOMOSIS FOR COLON CANCER

Eumihiko Fujita, MD, PhD, Takehiro Mishima, MD, PhD, Shinichiro Ito, MD, Tomohiko Adachi, MD, PhD, Akihiko Soyama, MD, PhD, Yasuhiro Torashima, MD, PhD, Amane Kitazato, MD, PhD, Taichiro Kosaka, MD, PhD, Kosho Yamanouchi, MD, PhD, Shigeki Minami, MD, PhD, Kengo Kanetaka, MD, PhD, Mitsuhisa Takatsuki, MD, PhD, Tamotsu Kuroki, MD, PhD, Susumu Eguchi, MD, PhD; Department of Surgery, Nagasaki University Graduate School of Biomedical Sciences

P056 LAPAROSCOPIC COMPLETE MESOCOLIC EXCISION CONDUCTED BY REDUCED PORT SURGERY FOR COLON CANCER

Shinichiro Mori, MD, Yoshiaki Kita, MD, Kenji Baba, MD, Shigeihiro Yanakita, MD, Kosei Maemura, MD, Hiroshi Okumura, MD, Tetsuhiro Nakajo, Shoji Natsugoe, MD, Department of Digestive Surgery, Breast and Thyroid Surgery Graduate School of Medical and Dental Sciences

P057 SINGLE-INCISION PLUS ONE PORT LAPAROSCOPIC ANTERIOR RESECTION FOR RECTAL CANCER: SINGLE INSTITUTIONAL 56 INITIAL EXPERIENCES.

Masaaki Hattori, PhD, Yasumitsu Hirano, PhD, Kenji Douden, PhD, Yasuo Hashizume, PhD, Fukui Prefectural Hospital

P058 LAPAROSCOPIC COLORECTAL SURGERY IN OBSESSIVE SUBJECTS CARRIES HIGHER COMPLICATION: Regeesh Selvaganesan, MS, MCh, Puneet Dhar, MCh, Shraddhan S, MS, FRCS, Unnikrishnan G, MS, DNB, Dinesh Balakrishnan, MS, DNB, Ramachandran Menon, MS, DNB, Sudeer O V, MS, MCh; AMRITA INSTITUTE OF MEDICAL SCIENCES AND RESEARCH CENTER, KERALA, INDIA

P059 LAPAROSCOPIC REDO LEFT-SIDED COLORECTAL RESECTION WITH ANASTOMOSIS: ARE THERE ADVANTAGES? Fu-Lin Lin, MD, Giovanna da Silva, MD, David J Marion, MD, Eric G Weiss, MD, Steven D Wexner, MD; Cleveland Clinic Florida

P060 A CASE OF CLEAR CELL ADENOCARCINOMA ARISING IN THE ENDOMETRIOSIS OF THE RECTUM TREATED BY LAPAROSCOPIC SURGERY

Yu Okazawa, Rina Takahashi, Kousuke Mizukoshi, Kazuhiro Takehara, Shin Ishiyama, Kiichi Sugimoto, Makoto Takahashi, Yukata Kojima, Michitoshi Goto, Atsushi Okuzawa, Yuichi Tomiki, Kazuhiro Sakamoto; Juntendo University Faculty of Medicine

P061 RECTO COELIC POLIPOSIUS: A TOTAL PROCTOColecTOMY BY LAPAROSCOPIC SOLUTION

Setelio S Rua, md, Alfredo Pinto, md; hospital litoral alentejano

P062 LEFT SEGMENTAL COLORECTAL RESECTION WITH EXTRACTATION OF THE SPECIMEN THROUGH THE INGUINAL HERNIA INGUINAL SETELIO S Rua, md, Diogo Marinho; hospital litoral alentejano

P063 EARLY EXPERIENCE OF SINGLE INCISION LAPAROSCOPIC COLO-RECTAL SURGERY.

Koo Yong Hahn, MD, PhD, Seon Hahn Kim, MD, PhD; Seongnam Central Hospital

P064 ENDOSCOPY FOR THE ASSESSMENT AND TREATMENT OF ANASTOMOTIC BLEEDING IN LAPAROSCOPIC ANTERIOR RESECTION FOR RECTAL CANCER

Jun-Jun Ma, MD, PhD, Ai-guo Lu, MD, Ya-ping Zong, MD, Bo Feng, MD, PhD, Lu Zang, MD, Min-hua Zheng, MD, Rui-jin Hospital, Shanghai Jiao-Tong University School of Medicine, Shanghai Minimal Invasive Surgery Center

P065 SACRAL NEUROMODULATION FOR TREATING FAECAL INCONTINENCE: ASSESSMENT OF SYMPTOM IMPROVEMENT USING AN ONLINE PATIENT ASSESSMENT QUESTIONNAIRE.

Naveed Altaf, MRCS, Tim Maheswaran Anil Reddy, FRCS, MD; JAMES COOK UNIVERSITY HOSPITAL

P066 CAN SACRAL NEUROMODULATION FOR FAECAL INCONTINENCE IMPROVE VAGINAL AND SEXUAL SYMPTOMS?

Naveed Altaf, MRCS, Tim Maheswaran, Anil Reddy, MD, FRCS; JAMES COOK UNIVERSITY HOSPITAL

P067 SHORT-TERM OUTCOMES OF THE LAPAROSCOPIC SURGERY FOR TRANSVERSE COLON CANCER: THE EXAMINATION OF ONCOLOGIC VALIDITY AND

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Po66 THE USEFULNESS OF THE VOLUME RENDERSIMULATION IN LAPAROSCOPIC COLORECTAL FISTULA FOR THE TREATMENT OF RECTOCELE.

Hidetaka Shimada, Nobuhiro Kurita, Takashi Iwata, Hirohiko Sato, Kozo Yoshikawa, Tomohiko Miyatani, Chie Tasaki, Noriko Matsumoto; The university of Tokushima.

Po70 POSTOPERATIVE HOSPITAL STAY AFTER LAPAROSCOPIC INTERSPHINCTERIC RESECTION FOR LOWER RECTAL MALIGNANT TUMORS.

Seichiro Yamamoto, Ph.D., Shin Fujimoto, Takashi Akiyama, Masashi Takawa, Taisuke Oishi; National Cancer Center Hospital.

Po71 THE ROUTINE USE OF SINGLE PORT COLORECTAL SURGERY: A COMPARISON OF OUTCOMES TO MULTIPORT LAPAROSCOPY IN 144 CASES OVER A 12 MONTH PERIOD.

Renee Huang, MD, Cynthia Sulzbach, BS, Dominique McKeever, BA, Daniel Benchimol, MD, FACS, John Marks, MD, FACS, FASCRS; Section of Colorectal Surgery, Lankenau Medical Center, Wynnewood, PA, United States, "Universite de Nice.

Po72 SHORT TERM OUTCOMES COMPARING LAPAROSCOPIC VERSUS ROBOTIC COLECTOMIES.

Harsha Polavarapu, MD, George J Nassif, DO, Andres Monroy, MD, Teresa deBeche-Adams, MD, Sam Atallah, MD, Matthew K Albert, MD, Sergio W Larach, MD; Florida Hospital Center for Colon and Rectal Surgery.

Po73 COLOSTOMY CREATION FOR FECAL DIVERSION: EARLY EXPERIENCE UTILIZING SINGLE INCISION LAPAROSCOPIC SURGERY.

Clarence Clark, MD, FACS, Darryl Knight, MD, Carl Lokko, MD, Travelyen Walker, MD; Morehouse School of Medicine.

Po74 PLASMA LEVELS OF MONOCYTE CHEMOTACTIC PROTEIN-1 (MCP-1), A PROANGIOGENIC PROTEIN, ARE ELEVATED DURING FIRST MONTH AFTER MINIMALLY INVASIVE COLORECTAL RESECTION FOR BENIGN TUMORS.

Hmc Shantha Kumara, PhD, Sonali A C Herath, BS, Myers A Elizabeth, MD, Hiromichi Miyagaki, MD, Joon J Jang, MD, Yan Xiaohong, PhD, Linda Njoh, MS, Vesna Cekic, RN, Richard L Whelan, MD; Division of Colon and Rectal Surgery, Department of Surgery, St Luke-Roosevelt Hospital Center, Suite 7B, 425 West, 59th Street, New York, NY 10019, USA.

Po75 WHEN IS IT SAFE TO DISCHARGE PATIENTS FOLLOWING COLOSTOMY? VALIDATION OF THE ALDRETE SCORE.

N. Hickey, BSc, M. O’Leary, BSc, V. Falk, MD, D. Pace, MD, M. Borgaonkar, MD, MSc; Memorial University of Newfoundland- Faculty of Medicine.

Po76 MINIMALLY INVASIVE COLORECTAL RESECTION IS ASSOCIATED WITH PERSISTENTLY ELEVATED LEVELS OF INTERLEUKIN-6(L) DURING THE FIRST MONTH AFTER SURGERY THAT MAY PROMOTE RESIDUAL CANCER GROWTH AND METASTASIS.

Hmc Shantha Kumara, PhD, Hiromichi Miyagaki, MD, Xiaohong Yan, PhD, Myers A Elizabeth, MD, Sonali A C Herath, BS, Joon J Jang, MD, Linda Njoh, MS, Vesna Cekic, RN, Richard L Whelan, MD; Division of Colon and Rectal Surgery, Department of Surgery, St Luke-Roosevelt Hospital Center, Suite 7B, 425 West, 59th Street, New York, NY 10019, USA.

Po77 CLOSTRIDIUM DIFFICILE ASSOCIATED COLITIS: A 10 YEAR ANALYSIS OF TRENDS AND CHARACTERISTICS.

Gregory B Burgoyne, MD, Richard F Heitmiller, MD; Medstar Union Memorial Hospital.

Po78 HOW ACCURATE IS THE PREOPERATIVE DIAGNOSIS FOR TEM PROCEDURES?

Theodore J Saclarides, MD, FACS, Maria C Mora Pinzon, MD, Amanda B Francescatti, BA, Bogdan Vidican, BS; Loyola University Medical Center, Rush University Medical Center.

Po79 WHAT TO EXPECT BEFORE, DURING AND AFTER A TEM PROCEDURE?

Theodore J Saclarides, MD, Maria C Mora Pinzon, MD, Amanda B Francescatti, BA; Loyola University Medical Center, Rush University Medical Center.

Po80 LAPAROSCOPIC SEGMENTAL COLECTOMY FOR OCCTOGENARIANS: IS IT NEW?

Maria C Mora Pinzon, MD, Jacqueline Fiala, Amanda B Francescatti, BA, Marc I Brand, MD, Dana M Hayden, MD, MPH, Theodore J Saclarides, MD, FACS; Rush University Medical Center, Loyola University Medical Center.

Po81 IS OBESITY A CONTRAINDICATION FOR LAPAROSCOPIC COLECTOMY?

Maria C Mora Pinzon, MD, Alan Goldberg, Amanda B Francescatti, Marc I Brand, MD, Dana M Hayden, MD, MPH, Theodore J Saclarides, MD, FACS; Rush University Medical Center, Loyola University Medical Center.

Po82 TRANSMAL MINIMALLY INVASIVE SURGERY (TAMIS) USING A DISPOSABLE DEVICE. INITIAL EXPERIENCE.

Gustavo Seva-Pereira, MD, Luis Gustavo C Romagnolo, Vilmar l Trombeta; Instituto Pro-Gastro.

Po83 COMPETENCY IN COLORECTAL SURGERY BY SURGEONS IMPROVES WITH EXPERIENCE.

M. O’Leary, BSc, M. Borgaonkar, MD, MSc, D. Pace, MD, N. Hickey, BSc, V. Falk, MD, J. McGrath, MD, MSc, D. Boone, MD, G. Fallowds, MD; Memorial University of Newfoundland Faculty of Medicine, Queen’s University Faculty of Medicine.

Po84 NEW TECHNIQUE OF ONE-PIECE RESECTION TO COLORECTAL TUMOR UNDER LAPAROSCOPY AND ENDOSCOPY CO-OPERATIVE SURGERY.

Yosuke Fukunaga, Yoshiro Tamegai, MD, Akiko Chino, MD, Masashi Ueno, MD, Satoshi Nagayama, MD, Yoshiya Fujimoto, MD, Tsuyoshi Konishi, MD, Takashi Akioyoshi, MD, Toshihiko Miki, Atsushi Ikeda, Toshiya Nagasaki, MD, Jun Nagata, MD; Cancer institute hospital.

Po85 “SINGLE FLIES ONE” TECHNIQUE FOR RECTSISMOID RESECTION OF BENIGN AND MALIGNANT TUMOR.

Madhu Raghupathi, MD, Javier Nieto, MD, Rodrigo Pedraza, MD, T Bartley Pickorn, MD, Eric M Haas, MD, FACS, FASCRS; Colorectal Surgical Associates, Ltd, LLP / Minimally Invasive Colon and Rectal Surgery, Department of Surgery, The University of Texas Medical School / Michael E. DeBakey Department of Surgery, Baylor College of Medicine / Houston, TX.

Po86 CLINICAL USEFULNESS OF LAPAROSCOPIC SURGERY FOR VERY ELDERLY PATIENTS WITH COLORECTAL CANCER.

Hiroyoshi Miura, Atsuko Tsutsui, Naoto Ogura, Masanori Naito, Takeo Sato, Takatoshi Nakamura, Masahiko Watanabe; School of Medicine, Kitasato University.

Po87 TRANSMAL ENDOSCOPIC MICROSURGERY: A 15 YEAR EXPERIENCE EVALUATING INDICATIONS AND OUTCOMES.

Renee Huang MD, Cynthia Sulzbach, BS, Dominique McKeever, BA, John Marks, MD, MSc, FACS, FASCRS; Section of Colorectal Surgery, Lankenau Medical Center, Wynnewood, PA.

Po88 ONCOLOGIC RESULTS AFTER LAPAROSCOPIC COLORECTAL CANCER RESECTION ACCORDING TO THE ATTEMPT OF LAPAROSCOPIC SURGERY FROM OPEN SURGERY BY SINGLE SURGEON.

Yong Kim, MD, Jae Hwang Kim, MD, Sang Hun Jung, MD, So Hyun Kim, MD; Department of Surgery, College of Medicine, Yeungnam University, Daegu, Korea.

Po89 LAPAROSCOPIC APPENDECTOMY FOR APPENDECEAL ABSCESSES: EMERGENT VERSUS INTERVAL APPENDECY.

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P141 CAN SURGERY RESIDENTS BE TRAINED TO PERFORM DIAGNOSTIC AND THERAPEUTIC ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY (ERCP) DURING THEIR TRAINING? Matthew Johnson, MD, Cory Richardson, MD, Maris Jones, MD, Shawn Tsuda, MD, Adnan Mohsin, Charles St. Hill, MD, Noel Devera, RN, Louise Shadwick, RN, Nathan Ozobia, MD; University of Nevada School of Medicine

P142 DETERMINING THE “STTARS” AMONG TEACHERS OF ADVANCED LAPAROSCOPIC SURGERY Susann M Wyles, MD, Danilo Miskovic, MD, FRCS, Melody Ni, PhD, Nader Francis, PhD, FRCS, Mark G Coleman, MD, FRCS, George B Hanna, PhD, FRCS; Imperial College London, Derriford Hospital (on behalf of the National Training Program)

P143 COLONOSCOPISTS CAN ACCURATELY SELF-ASSESS THEIR PERFORMANCE WHEN USING THE WIMAT COLONOSCOPY SUITE POLYECTOMY TRAINING James Angell, Joanna Hurley, James Horwood, Chantelle Rizan, Konstantinos Arnaoutakis, Stuart Goddard, Neil Warren, Jared Torkington; Welsh Institute for Minimal Access Therapy (WIMAT)

P144 THE WIMAT COLONOSCOPY SUITE IS A VALID SIMULATOR FOR POLYECTOMY TRAINING James Angell, Joanna Hurley, James Horwood, Chantelle Rizan, Konstantinos Arnaoutakis, Stuart Goddard, Neil Warren, Jared Torkington; Welsh Institute for Minimal Access Therapy, University Hospital Llandough, University Hospital of Wales

P145 THE INTEGRATION OF MINIMALLY INVASIVE SURGERY IN SURGICAL PRACTICE: RESULTS FROM TWO CONSECUTIVE PROVINCE-WIDE PRACTICE SURVEYS OF GENERAL SURGEONS:A 6-YEAR PERIOD. Julie Hallett, MD, FRSC, Olivier Mailloux, MD, Mony Chiv, MD, FRSC, Roger C Gregoire, MD, FRSC, Jean-Pierre Gagne, MD, LLM, FRSC; Department of Surgery, Centre Hospitalier Universitaire de Quebec - Hôpital Universitaire de Quebec - Hôpital Saint-François d’Assise, Quebec Centre for Minimally Invasive Surgery, Quebec, QC, Canada

P146 SHORT-DURATION VIRTUAL-REALITY SIMULATION TRAINING POSITIVELY IMPACTS PERFORMANCE DURING LAPAROSCOPIC COLECTOMY IN ANIMAL MODEL: RESULTS OF A RANDOMIZED TRIAL. Sergio E Araujo, MD, PhD, Conor P Delaney, MD, MCh, PhD, Vitor E Seid, MD, Antonio R Imperiale, MD, Paulo Herman, MD, PhD, Sergio C Nahas, MD, PhD, Ivan Cecconello, MDPhD; Colorectal Surgery Division at the University of São Paulo Medical Center, São Paulo, Brazil and Case Western Reserve University Center for Skills and Simulation, Cleveland, OH

P147 THE ROLE OF 3D VISUALIZATION IN LAPAROSCOPIC SIMULATION TRAINING Shoana Shetty, MD, Sebastian Wilk, Vinay Bhamidipati, Inam Shaikh, MD, Alexander J Paley, MD, FRCS; St Mary’s Hospital, Waterbury, CT

P148 STARTING AN ENDOSCOPY CURRICULUM IN A GENERAL SURGERY RESIDENCY PROGRAM William W Hope, MD, W. Borden Hooks III, MD, Khoi Le, MD, Cyrus A Kotwall, MD, Thomas V Clancy, MD; New Hanover Regional Medical Center

P149 GASTROESOPHAGEAL REFLUX IS COMMON AFTER BOTH SLEEVE AND BAND; GER IS PRECANCEROUS LESION; A WARNING TO SURGEONS AND PATIENTS: THE BAND AND SLEEVE MAY LEAD TO GER AND ESOPHAGEAL CANCER R Bulledge, MD; Center for Laparoscopic Obesity Surgery

P150 WHAT LIES BENEATH? DETERMINING THE PERSONALITY OF ADVANCED LAPAROSCOPIC SURGEONS: CAN A DIFFERENCE IMPACT THE QUALITY OF TRAINING? Susannah M Wyles, MD, Anam Parand, MSc, Melody Ni, PhD, John T Jenkins, FRCS, George B Hanna, PhD, FRCS; Imperial College London, St Mark’s Hospital Harrow

P151 LAPAROSCOPIC SKILLS ACQUISITION USING TWO DIMENSION AND THREE DIMENSION VISUAL SYSTEMS: A RANDOMIZED CONTROL STUDY Badiya S Alaraini, MD, Shah-Jalal Sarkar, PhD, Walid S ElBakbak, MSc, Ahmad Al-Marzouq, MSc, Sundus Makkayiah, MSc, Richie G. Goriparthi, MSc, Vincent Quan, BSc, Bijendra Patel, FRCS; Barts Cancer Institute, Queen Mary University of London and Barts and the London Hospitals

P152 VALIDATION OF A VIRTUAL REALITY BASED ROBOTIC SURGICAL SKILLS CURRICULUM Michael Connolly, BS, John Seligman, BA, Maurice Page, MD, Andrew Kastenmeier, MD, Matthew I Goldblatt, MD, Jon C Gould, MD; Medical College of Wisconsin, Department of Surgery, Division of General Surgery

P153 USING SOCIAL MEDIA FOR SURGICAL EDUCATION: DISTRACTION OR OPPORTUNITY? Tanya M Santella, Pepa Kaneva, MSc, Andrea Petrucci, MD, Ekaterina Lebedeva, MLIS, Liane S Feldman, MD, FRSCC, FACS, Gerald M Fried, MD, FRSCC, FACS, Melina C Vassiliou, MD, MEd, FRSCC; McGill University Health Centre

P154 A CHECKLIST IMPROVES TROUBLESHOOTING OF COMMON ENDOSCOPIC MALFUNCTIONS BY SURGICAL RESIDENTS IN SIMULATED ENVIRONMENT Kevin L Grimes, MD, Jenny Lam, BS, Shawn Tsuda, MD; University of Nevada School of Medicine

P155 ANALYSES OF OVER 8000 TRAINEES ATTENDED AN INTEGRATED 2-DAY STANDARDIZED LAPAROSCOPIC SURGERY TRAINING COURSE AT A SINGLE CENTER IN KYUSHU UNIVERSITY Morimasa Tomikawa, MD, PhD, FACS, Masahiro Uemura, MD, PhD, Noriyuki Tsutsumi, MD, PhD, Ryuichi Kumahiro, MD, Ryota Souzaki, MD, PhD, Kenoki Ohuchida, MD, PhD, Satoshi Ieiri, MD, PhD, Takeshi Ohdaira, MD, PhD, Makoto Hashizume, MD, PhD, FACS; Department of Advanced Medicine and Innovative Technology, Kyushu University Hospital, Kyushu University School of Medicine

P156 A NEW ANIMAL TRAINING MODEL FOR THORACOSCOPIC ESOPHAGECTOMY IN A PRONE POSITION Soji Ozawa, MD, PhD, Takashi Akiishi, MD, PhD, Haruhiro Inoue, MD, PhD, Masayuki Higashino, MD, PhD, Takashi Kamei, MD, PhD, Natsuya Katada, MD, PhD, Tatsuyuki Kawano, MD, PhD, Yuko Kitagawa, MD, PhD, Masahiko Murakami, MD, PhD, Shunichi Okushima, MD, PhD, Nobuo Omura, MD, PhD, Harushi Osugi, MD, PhD; Japan Study Group for Endoscopic Esophageal Surgery

P157 THE EFFECT OF VISUAL FORCE FEEDBACK ON APPLIED FORCES DURING A COMPLEX LAPAROSCOPIC PROCEDURE Ana Luisa Trejos, PhD, Rajni V Patel, PhD, PEng, Michael D Naish, PhD, PEng, Richard A Malthaner, MD, MSc, FRSCC, FACS, FCCP, Christopher M Schlacht, BSc, MD, CM, FRSCC, FACS; Canadian Surgical Technologies and Advanced Robotics, Lawson Health Research Institute, Department of Electrical and Computer Engineering, Department of Mechanical Engineering, Department of Surgery, The University of Western Ontario, London, Ontario

P158 EFFECTS OF SLEEP HOURS AND FATIGUE ON PERFORMANCE IN LAPAROSCOPIC SURGERY SIMULATORS Amine Chellali, PhD, Ganesh Santharanarayanan, PhD, Likun Zhang, MSc, Caroline G.L. Cao, PhD, Suvarnai De, ScD, Daniel B Jones, MD, Benjamin Schneider, MD; Cambridge Health Alliance, Harvard Medical School, Rensselaer Polytechnic Institute, Tufts University, Wright State University, Beth Israel Deaconess Medical Center

P159 VALIDATION OF DEVELOPMENT AND EARLY OUTCOMES OF THE TOOLKIT FOR ILLUSTRATION PROCEDURES IN SURGERY (TIPS) Moshim Kukur, MD, Saleh Dindar, Jorg Peters, Juan Cendan, James Hassett, Ruth Nawotny, PhD, Tomi Raynak, WD, Gary Rees, MD, Sergei Kurenov; Department of Surgical Oncology Roswell Park Cancer Institute, CISE University of Florida, Clinical Skills and Simulation Center University of Central Florida, Department of Surgery University at Buffalo

P160 EFFECTIVENESS OF LEARNING ADVANCED LAPAROSCOPIC SKILLS IN AN INTENSIVE LAPAROSCOPIC TRAINING PROGRAM Francisco Vainstein, MD, Julian Achara, MD, Julian Varas, MD, Carla Faivovich, MD, Jorge Martinez, MD, Napoleon Saldago, MD, Nicolas Jarufe, MD, Camilo Boza, MD; Faculty of Medicine, Pontificia Universidad Catolica de Chile, Department of Digestive Surgery

P161 OPERATIVE TIME IS AN EFFECTIVE TOOL TO EVALUATE Surgical Spring Week | SAGES 2013 174 Scientific Session & Postgraduate Course
P162 IMPROVING LAPAROSCOPIC TRAINING USING MOBILE DEVICES AND INTERACTIVE MEDIA WITH AUGMENTED REALITY (AR) TECHNOLOGY. Alex C Nagy, MD, Shahram Payandeh, PhD, Andrew Nagy: UBC and SFU

P163 CAN THERAPEUTIC MINIMALLY INVASIVE SURGERY BE TAUGHT? Heidi Ryan, MD, Shawn Tsuda, MD, FACS, Timothy Browder, MD, FACS; University of Nevada School of Medicine

P164 ENHANCED RECOVERY SIMULATION IN COLORECTAL SURGERY: DESIGN OF VIRTUAL ONLINE PATIENTS Laura Bever-Berjot, MD, Vishal Patel, MRCs, Paul Ziprin, MD, FRCS, David Taylor, MSc, MBCh, Stephane Berdah, MD, PhD, Ara Darzi, KBE, MD, FACS, FRCS, HonFREng, FMedSci, Rajesh Aggarwal, MD, PhD, MA, FRCs; Department of Biosurgery and Surgical Technology, St. Mary's Campus, Imperial College, London, United Kingdom. Center for Surgical Teaching and Research (CERC), Université de la Méditerranée, Marseille, France.

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P263 ARTIFICIAL PNEUMOTHORAX DURING MINIMALLY INVASIVE ESOPHAGECTOMY. Michiyo Tokura, MD, Yosuke Izumi, MD, PhD, Taira Ryotokuij, MD, Akinori Miura, MD, Tsuyoshi Kato, MD, Kei Sakamoto, MD; Tokyo Metropolitan Cancer and Infectious Diseases Center, Komagome Hospital

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P265 HORIZONTAL MATTRESS SUTURE FOR DIAPHRAGMATIC FLAP CLOSURE IN LAPAROSCOPIC ANTIREFLUX SURGICAL PROCEDURES. Jose Daniel Lozada Leon, MD, Sanatorio Santa Monica, Cuernavaca, Morelos, Mexico.

P266 ESOPHAGEAL PERFORATION. LAPAROEDENSCOPTIC MANAGEMENT Jose Daniel Lozada Leon, MD, Ramon Oropeza Martinez, MD, Jose Antonio Tamara Lopez, MD, Clodaida Durthley Lozada Leon, MD, Fret Carreto Arredondo, MD, Aide Colin Armenta, SN; Santa Monica hospital Cuernavaca, Morelos, Mexico.

P267 SYMPTOMS QUESTIONNAIRE, BRONCHOALVEOLAR LAVAGE FLUID, AND EXHALED BREATH CONDENSATE FOR THE IDENTIFICATION OF LUNG TRANSPLANT PATIENTS WITH GASTROESOPHAGEAL REFLUX DISEASE Christopher S Davis, MD, MPH, Nicholas Reder, MPH, Elizabeth J Kovacs, PhD, F Marco Fisichella, MD; Loyola University Medical Center

P268 PEPTIC ULCER DISEASE: IS THERE A SURGE FOR SURGICAL INTERVENTION? Ikediloyi Ojinnika, MD, Agaba A Emmanuel, MD, Edward Chao, MD, Peter Shammanian, MD, Prabha Vemulapalli, MD; Montefiore Medical Center at Albert Einstein College of Medicine, Bronx-New York 10467.

P269 TOTALLY EXTRAPERITONEAL HERNIA REPAIR UNDER GENERAL ANAESTHESIA VERSUS LIGHTENSTEIN REPAIR UNDER LOCAL ANAESTHESIA FOR PRIMARY, UNCOMPLICATED, UNILATERAL INGUINAL HERNIA: AN OUTCOME ANALYSIS. Naveen Sharma, MS, Devi S Dhanakhar, MBBS, Tushar S Mishra, MD, Navneet Kaur, MS, Seema Singh, MS, Sanjay Gupta, MS; University College of Medical Sciences, Delhi

P270 LAPAROSCOPIC VENTRAL HERNIA REPAIR USING SPINAL NEEDLE FOR TRANSFASCIAL FIXATION Anil Kumar P, Post, Graduate, Manish Ranjan Dey, MBBS; SCB MEDICAL COLLEGE, CUTTACK, ODISHA, INDIA

P271 LAPAROSCOPIC ADULT BOCHDALEK HERNIA REPAIR WITH MESH: 2 CASES Frank P Bendewald, MD: Deac Clinic

P272 STUDY OF TENSION-FREE HERNIA REPAIR TECHNIQUES FOR Aged PATIENTS WITH INGUINAL HERNIA Ke Gong, MD, Gong Liu, MD, Nengwei Zhang, MD, Bin Zhu, MD, Dexiao Du, MD; Beijing Shijitan Hospital affiliated to Capital Medical University

P273 LAPAROSCOPIC BLADDER INJURY REPAIR DURING TOTAL EXTRAPERITONEAL HERNIA SURGERY: DESCRIPTION OF THE TECHNIQUE AND REVIEW OF LITERATURE Jakub Wilhelm, MD, Garrett Keim, MSIII, Alexey Markelov, MD, Artun Aksade, MD, FACS; Easton Hospital, Drewel University College of Medicine

P274 ROBOTIC & LAPAROSCOPIC INGUINAL HERNIA REPAIR-CASE MATCHED STUDY David S Edelman, MD; Doctor's Hospital, Coral Gables, Florida

P275 LAPAROSCOPIC DIAPHRAGMATIC HERNIA REPAIR WITH MESH Matthew Benenati, DO, Alia Abdulla, DO, Linda Szczurek, DO, Adeshola Fakuluiyo, MD; University of Medicine and Dentistry of New Jersey

P276 REINFORCEMENT OF MIDLINE LAPAROTOMIES WITH BIOABSORBABLE MESH: IMPLICATIONS ON WOUND HEALING AND INFECTION Andrew Victory, Medical Student, Joe Drosdeek, MD, Brendan Marr, MD, Mark Wendling, MD, Jonathan Rock, MD, Alan Litsky, MD, ScD, Mario Salazar, MD, Aliyah Kanji, MD, W Scott Melvin, MD; The Ohio State University Wexner Medical Center

P277 COMBINED LAPAROSCOPIC AND OPEN TECHNIQUE FOR THE REPAIR OF LARGE COMPLICATED INCISIONAL HERNIAS Yun Ji, MD, Xiaoli Zhan, MD, Yuedong Wang, MD, PhD, Jinhuo Zhu, MD; Department of General Surgery, Second Affiliated Hospital Zhejiang University College of Medicine

P278 ENDOSCOPIC COMPONENT SEPARATION SIMULATOR PROJECT Bindhu Oommen, MD, MPH, Gregory J Mancini, MD, Melissa S Phillips, MD, Judy A Roark; University of Tennessee Medical Center in Knoxville

P279 THE NEW APPROACH FOR TOTAL EXTRAPERITONEAL (TEP) LAPAROSCOPIC INGUINAL HERNIA REPAIR USING OPTICAL METHOD AND NEEDLE-LIKE FORCEPS Takeshi Ishida, MD, Takuya Sato, MD, Takayuki Iino, MD, Shunsuke Onizawa, MD, Eiichi Hirai, MD, Mie Hamano, MD, Tsutomu Nakamura, MD, Tatsuo Araida, MD, Hitodo Oishi, MD; Division of Gastroenterological Surgery, Department of Surgery, Yachiyo Medical Center, Tokyo Women’s Medical University

P280 DOUBLE TROUBLE- LAPAROSCOPIC REPAIR OF TRAUMATIC DIAPHRAGMATIC AND INCISIONAL HERNIA Twila Pandya, MD, Praneetha Narahari, MD; Community Regional Medical Center/UCSF Fresno MEP, Fresno, CA

P281 LAPAROSCOPIC APPROACH TO GARENGOT HERNIA Juan Jose Gonzalez de la Mora, MD, Eva Julia De la Luz, MD, Guillermo Leon Merino, MD, Oscar Quiroz, MD; HOSPITAL ANGELES DEL PEDREGAL, MEXICO CITY, MEXICO

P282 SINGLE INCISION TRANSABDOMINAL PREPERITONEAL PATCH PLASTY IN 60 JAPANESE PATIENTS WITH INGUINAL HERNIA Kazuo Tanoue, MD, Osamu Miyoshi, MD, Hidenobu Okino, MD, Masamitsu Kanazawa, MD, Kizuro Ueno, MD; Ueno Hospital

P283 DO BILATERAL LAPAROSCOPIC HERNIA REPAIRS TAKE SIGNIFICANTLY LONGER OPERATIVE TIME THAN UNILATERAL ONES? T Maheswaran, P C Munipalle, D Light, M Little, Y K S Viswanath, T Garud; South Tees Hospitals NHS Foundation Trust, Middlesbrough, UK

P284 SURVESICAL HERNIA REVISITED, WITH 5 YEAR FOLLOW UP T Maheswaran, P C Munipalle, T Garud, Y K S Viswanath; South Tees Hospitals NHS Foundation Trust, Middlesbrough, UK

P285 LAPAROSCOPIC REPAIR OF A LEFT PARADUODENAL HERNIA AT THE LIGAMENT OF TREITZ—A CASE REPORT Luanne Force, MD, Jihan Hegazy, MD, Jay J Strain, MD, Amit Joshi, MD; Department of Surgery, Albert Einstein Healthcare Network

P286 BOTULINUM TOXIN AS ADJUNCT IN COMPLEX ABDOMINAL WALL RECONSTRUCTION Prashant Sinha, MD, MEng; New York University Langone Medical Center, Bellevue Hospital Center

P287 ASSESSMENT OF THE EFFECTIVENESS OF SURGICAL MANAGEMENT IN SPORTSPERSON’S HERNIA - ROLE OF GLOBAL OUTCOME ASSESSMENT TOOL T Maheswaran, P C Munipalle, M Adamson, T Garud, Y K S Viswanath; BML Woodlands Physiotherapy Unit & South Tees Hospitals NHS Foundation Trust, Middlesbrough, UK

P288 BENEFITS OF POST-OPEVATIVE PHYSIOTHERAPEUTIC REHABILITATION IN PATIENTS WITH SPORTSPERSON’S HERNIA - QUALITY OF LIFE SURVEY T Maheswaran, P C Munipalle, M Adamson, T Garud, Y K S Viswanath; BML Woodlands Physiotherapy Unit & South Tees Hospitals NHS
P289 APPLES TO APPLES: A COMPARISON OF LAPAROSCOPIC VERSUS OPEN PREPERITONEAL INGUINAL HERNIA REPAIR
Maria Abou Khalil, Shannon Fraser, MD, MSc, FRCSC, FACS; Department of Surgery, Jewish General Hospital, McGill University, Montreal, Quebec, Canada

P290 LOW UPTAKE OF LAPAROSCOPIC INGUINAL HERNIA REPAIR: WHAT ARE THE BARRIERS FOR SURGEONS IN PRACTICE? Michael Trevisan, Pepa Kaneva, Ekaterina Lebedeva, Liane S. Feldman, Gerald M. Fried, Melina C. Vassiliou; Steinberg-Berstein Centre for Minimally Invasive Surgery, McGill University Health Centre

P291 PSEUDORECURRANCES AFTER LAPAROSCOPIC INGUINAL HERNIA REPAIR: INCIDENCE, PREDICTORS AND SEQUELAE Deboshri Sharma, Priya Hazrath, Raj Kapur, Romesh Lai; Department of Surgery, Lady Hardinge Medical College, New Delhi 110001 India

P292 COMPARATIVE RETROSPECTIVE REVIEW OF ROBOTIC VENTRAL HERNIA REPAIR AND LAPAROSCOPIC VENTRAL HERNIA REPAIR: A SINGLE GROUP EXPERIENCE. Anthony M Gonzalez, MD, FACS, FASMS, Jorge R Rabaza, MD, FACS, FASMS, Rupa Seetharamaiah, MD, FACS, Charan Donkor, MD, Key Romero, MD, Radomir Kosanovic, MD, Francisco Perez-Loreto, MD, Jonathan Arad, MD; Baptist Health South Florida, Florida International University Herbert Wertheim College of Medicine

P293 LONG-TERM OUTCOMES OF LAPAROSCOPICALLY TOTAL EXTRAPERITONEAL INGUINAL HERNIORRHAPHY Jun-Beom Park, MD, Ji-Young Sul, MD, PhD, Yo-Han Choi, MD, Ji-Hong Park, MD; Department of Surgery, Chungnam National University School of Medicine, Daejeon, Korea

P294 FEASIBILITY OF SINGLE INCISION ENDOSCOPIC TOTAL EXTRAPERITONEAL HERNIA SURGERY UNDER LOCAL ANESTHESIA. Norihito Wada, MD, PhD, Toshiharu Furukawa, MD, PhD, Yuke Kitagawa, MD, PhD; Department of Surgery, School of Medicine, Keio University

P295 LAPAROSCOPY ASSISTED REPAIR OF DIAPHRAGMATIC HERNIA AFTER ESOPHAGECTOMY FOR CARCINOMA OF THE ESOPHAGUS: A REPORT OF A CASE. Yoko Wada, MD, Hitoshi Satodate, MD, Chiyo Maeda, MD, Michifaka Suzuki, MD, Noriko Odaka, MD, Haruhiro Inoue, MD, Shien-ei Kudo, MD; Showa University Northern Yokohama Hospital Digestive Disease Center

P296 LAPAROSCOPIC MANAGEMENT OF NON-MIDLINE VENTRAL HERNIA Romesh Lai, Deboshri Sharma, Priya Hazrath, Pawan Kumar, Saurabh Borgharia; Department of Surgery, Lady Hardinge Medical College, New Delhi 110001 India

P297 COMPARISON OF CONVENTIONAL VERSUS SINGLE INCISION LAPAROSCOPIC SURGERY (SILS) TOTAL EXTRAPERITONEAL (TEP) INGUINAL HERNIA REPAIR Hayashi Nobuyaou, MD, Isao Arai, MD, PhD, Tamura Chieko, MD, Ichiro Ohashi, MDPH, Inoue Shigebaru, MD; Hanan Choo Hospital

P298 INCARCERATED FEMORAL HERNIA AND THE OVARY FOUND WITHIN IT Matias J Nauts, DO, Linda Szczurek, DO, Margaret Merriam, DO, Marc Neff, MD; University of Medicine and Dentistry of New Jersey

P299 A RARE AND UNUSUAL CASE OF FALCIFORM LIGAMENT HERNIA AND A REVIEW OF THE LITERATURE Akram Alashari, MD, R Kimball, MD, I Daoud, MD, FACS; Division of Minimally Invasive Surgery St. Francis Hospital and Medical Center, Hartford, CT; University of Connecticut Health Center, Farmington, CT

P300 LAPAROSCOPIC MANAGEMENT OF SYMPTOMATIC CONGENITAL DIAPHRAGMATIC HERNIA IN THE ADULT Jesse L Madden, MD, Austin M Hill, MD, Samuel J O’Brien, Robert C Wrona, MD, Robert E Glasgow, MD; University of Utah

P301 STAGED APPROACH TO LAPAROSCOPIC VENTRAL HERNIA REPAIR WITH POSSIBLE ENTEROTOMIES Jane S Lee, MD, Randall Owen, MD, MS, FACS, Michael Edye, MD, FRACS, FACS; Mount Sinai Hospital

P302 LAPAROSCOPIC TREATMENT OF PARASTOMAL HERNIA USING SUGERBAKER TECHNIQUE WITH PARITEX COMPOSITE MESH Madoka Hamada, MD, Taishi Tamura, MD, Shuichi Sakamoto, MD, Yuki Katsura, MD, Toshiaki Toshima, MD, Takuya Kato, MD, Michinori Hamaoka, MD, Soichiro Miyake, MD, Hisanobu Miyoshi, MD, Yasuhiro Fujiwara, MD, Yasuhiro Chouda, MD, Takashi Kanazawa, MD, Masao Harano, MD, Hiyoshi Matsukawa, MD, Yasutomo Ojima, MD, Shigehisa Sasaki, MD, Satoshi Ohno, MD, Masazumi Okajima, MD, Motoki Ninomiya, MD; Hiroshima City Hospital

P303 TEP OPERATION PERFORMED IN CHRONIC INGUINAL NEURALGIA Takayuki Iino, MD; Division of Gastroenterological Surgery, Department of Surgery, Yachiyo Medical Center, Tokyo Women’s Medical University

P304 COST EFFECTIVENESS OF LAPAROSCOPIC VENTRAL & INCISIONAL HERNIA REPAIR Fayyaz A Mazari, MBBS, MRCs, MSc, K‘Thomas, MRCS, M M Yeung, MRCS, Muhammad H Shiwani, MBBS, FRCS, FCPS; Barnsley Hospital NHS Foundation Trust, Barnsley, United Kingdom

P305 ROBOTIC GIANT PARAESOPHAGEAL HERNIA REPAIR, THE LARGEST SINGLE CENTER EXPERIENCE TO DATE Amit Taggar, MD, Niaz Selim, MD, PhD, Todd Crawford, Will Poulsom, Cody Kramer; University of Kansas Medical Center

P306 LAPAROSCOPIC REPAIR OF LARGE & RECURRENT HIATUS HERNIAE WITH GORE BIO A MESH: INTERIM EXPERIENCE Ian A Mahdawarajan, BSc, MBBS, MSc, DIC, MD, MRCSEng, Anna Conway, BSc, MBBS, MRCSEng, Paras Jethwa, BSc, MBBS, MD, FRCSEng; Surrey and Sussex NHS Trust, Redhill, UK

P307 ROBOTIC-ASSISTED LAPAROSCOPIC REDUCTION AND REPAIR OF A GIANT INCARCERATED RECURRENT INGUINAL HERNIA CONTAINING BLADDER AND BOTH URETERS Justin Harmon, DO, Lawrence Cetrulo, MD, Damon Hoffman, DO, Kelly Kriebel, RN, BSN, Amit R Joshi, MD; Albert Einstein Healthcare Network

P308 SIMULTANEOUS COMPLEX INCISIONAL HERNIA REPAIR AND PANNICULECTOMY Mario Salazar, MD, Aliyah Kanji, MD, Dean J Mikami, MD; The Ohio State University Wexner Medical Center

P309 PRESENTATION AND MANAGEMENT OF MORGAGNI HERNIAS: A SINGLE CENTER EXPERIENCE Zachary Torgersen, MD, Pradeep Pallati, MD, Tommy Lee, MD, Suneet K Mittal, MD, Robert J Fitzgibbons, MD, Kalyana Nandipati, MD; Creighton University

P310 AN UNUSUAL INTERNAL HERNIA RELATED TO APPENDIX EPITOPIAE - A CASE STUDY AND REVIEW OF LITERATURE Soham U Dave, MA, OMSIII, Venkata K Kella, MD, Weirton Medical Center, West Virginia School of Osteopathic Medicine, Weirton, WV

P311 PARAESOPHAGEAL REPAIR USING BOVINE PERICARDIUM MESH Jesus N Vasquez, MD, Sergio Diaz, MD, Maria J Correa, MD, Lina Giraldo, MD, Sebastian Sierra, MD, Ricardo Longono, MD, Juan D Wolff, MD, Juan P Toro, MD, Silvia Medina, Nurse; General Surgery Department, Hospital Manuel Uribe Angel, Envigado- Antioquia, Colombia. Santa Maria Cardiovascular Clinic, Antioquia, Colombia

P312 SMALL-BOWEL DIVERTICULUM IN ELDERLY PATIENT: HAND ASSISTED LAPAROSCOPIC SURGERY Rene A Palomo, MD, Mario Rodarte, md, Alejandro Rodriguez, MD, Zanndro J Del Real, MD; Hospital San Jose Tecnológico de Monterrey

P313 SYMPTOMATIC PERIAMPUTALY DUODENAL DIVERTICULUM Shivani Shah, BS, Christian W Ertl, MD, FACS, Leandra H Burke, BS, CCRF, Michigan State University College of Human Medicine, Western Michigan University School of Medicine

P314 LAPAROSCOPIC SPLEEN PRESERVING DISTAL PANCREATECTOMY IN PSEUDOPAPILLAR NEOPLASMS OF PANCREAS. Evelyn A Dorado, MD; CES University Colombia

P315 LAPAROSCOPIC CYSTOGASTROSTOMY FOR PANCREATIC PSEUDOCYST - OUR EXPERIENCE, Manash Ranjan Sahoo, MS, Anil Kumar T, POST, GRADUATE; SCB MEDICAL COLLEGE, CUTTACK, ODISHA, INDIA
P316 LAPAROSCOPIC CHOLECYSTECTOMY IN OCCITANEGERIANS: OUTCOME ANALYSIS OF 48 CONSECUTIVE CASES BY A SINGLE SURGEON B.A. Gamagami, MD, Paul Kozak, Natalia Sopiarz; Department of Surgery; Silver Cross Hospital, New Lenox, Illinois

P317 FLUORESCENCE IMAGING OF INDOCYANINE GREEN DURING LAPAROSCOPIC ANATOMICAL HEPATECTOMY. Hitoshi Inagaki, MD, PHD, Hajime Kawagoe, MD, Satomi Uno, MD, Toshihiko Kayama, MD; Department of Surgery, Gifu Central Hospital, Gifu, Japan

P318 LAPAROSCOPIC CHOLECYSTECTOMY IN SITU INVERSUS TOTALIS: FEASIBILITY AND REVIEW OF LITERATURE Ibrahim A Salama, MDPhD, Mohammed H Abdullah, MD, Mohammed A Houseini; Department of Hepatobiliary Surgery (1), Department of Anesthesia (2), Department of Radiology (3) National Liver Institute, Menophya University. Shiben Elkom, Egypt

P319 LAPAROSCOPIC HAND ASSISTED TOTAL PANCREATECTOMY: SINGLE INSTITUTION EXPERIENCE OF 7 PATIENTS Sujit Kulkarni, MD, Lea Matsuoka, MD, Rick Selby, MD, Dilip Parekh, MD, Kaylene Barrera; Keck School of Medicine, University of Southern California, Los Angeles

P320 LAPAROSCOPIC HEPATECTOMY COULD BE THE FIRST CHOICE OF TREATMENT IN SELECTED PATIENTS WITH HEPATOCELLULAR CARCINOMA M Shimada, MD, FACS, S Iwashashi, MD, S Yamada, MD, Y Saitoh, MD, M Kanamoto, MD, Y Arakawa, MD, T Ikemoto, MD, Y Morine, MD, S Imura, MD, T Utsunomiya, MD, H Miyake, MD; Department of Surgery, The University of Tokushima

P321 TOTAL LAPAROSCOPIC PANCREATICOduodenECTOMY FEASIBILITY AND OUTCOME IN AN EARLY EXPERIENCE Thuan Nguyen, MD, Long Tran, MD, Bac Nguyen, PhD, Tuan Quan, MD; Division of Gastrointestinal and General Surgery, Department of Surgery, University Medical Center, Viet Nam

P322 LAPAROSCOPIC PARTIAL LIVER RESECTION FOR THE TREATMENT OF HEPATOCELLULAR CARCINOMA PATIENTS WITH UNDERLYING CHILD-PUGH B AND C LIVER CIRRHOSIS Mitsuo Miyazawa, MD, FACS, Masayasu AIkawa, MD, Katuya Okada, MD, Yukihiro Watanabe, MD, Kojun Okamoto, MD, Shigeki Yamaguchi, MD, Isamu Koyama, MD; Saitama Medical University International Medical Center

P323 PANCREATIC PSEUDOCYSTS IN PATIENTS WITH CHOLITHIASIS: Sharique Nazir, MD, Veshal Malhotra, MA, Jacques Duperval, MD, Fausto Vinces, DO, FACOS; Brooklyn hospital center NY,Lutheran Medical Center NY

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P325 EVALUATION OF AVASCULAR “HOly PLANE” BASED GOLD DISSECTION TECHNIQUE IN CONSECUTIVE UNSELECTED LAPAROSCOPIC CHOLECYSTECTOMIES: RESULTS OF 7 YEAR EXPERIENCE Brih B Agarwal, MD, Sneh Agarwal, MD, Manish K Gupta, Dr, Nayan Agarwal, Mr, Dhruv Agarwal, Dr, Karan Goyal, Dr, Satish Saluja, MD, Krishan C Mahajan, MD, Krishna A Agarwal, Dr, Himanshu Pandey, MD; Sir Ganga Ram Hospital, Dr. Agarwal's Surgery, New Delhi, India

P326 LIMITATIONS OF THE ONE STEP LAPAROSCOPIC CHOLECYSTECTOMY Cory Richardson, MD, Maris Jones, MD, Matthew Johnson, MD, Charles St Hill, MD, Louise Shadwick, RN, Nathan Ozobia, MD, FACS; University of Nevada School of Medicine and University Medical Center of Southern Nevada

P327 SANDWICH TECHNIQUE FOR THE MANAGEMENT OF PORTAL HYPERTENSION: LAPAROSCOPIC SPLENECTOMY PLUS PREOPERATIVE ENDOSCOPIC TIPS AND TAIL ENDOSCOPY. Jin Zhou, PhD, Zhong Wu, PhD, Bing Peng, PhD; West China Hospital, Sichuan University

P328 DELAYED GASTRIC EMPTYING AFTER LAPAROSCOPIC VERSUS OPEN PANCREATECOduodenECTOMY: A COMPARATIVE STUDY Yongbin Li, MD, Xin Wang, MD, Shuangchen Ke, MD, Mingjun Wang, MD, Zhenguang Yang, MD, Bing Feng, MD; Department of Hepatopancreatobiliary Surgery, West China Hospital, Sichuan University

P329 LAPAROSCOPIC PANCREATICoduodenECTOMY: AN EXPERIENCE AND REVIEW OF OUTCOMES Bing Peng, PhD, Zhong Wu, PhD, Jin Zhou, PhD; West Chinal Hospital, Sichuan University

P330 LAPAROSCOPY-ASSISTED VERSUS OPEN PANCREATECOduodenECTOMY: A COMPARATIVE STUDY IN AN EARLY CANADIAN EXPERIENCE Yifan Wang, Sabrina Piedmonte, BSc, Simon Bergman, MD, MSc, Tsafiri Vanounou, MD, MBA; Department of Surgery, Jewish General Hospital, McGill University, Montreal, Canada

P331 LAPAROSCOPIC LIVER RESSECTION FOR F4 LIVER CIRRHOSIS IN HEPATOCELLULAR CARCINOMA Shinjiro Taniyasu, MD, Ryuma Tokunaga, MD, Hiroshi Tanaka, MD, Shinji Ishikawa, MD, Hiroki Sugita, MD, Tetsumasa Arita, MD, Yasushi Yagi, MD, Masahiko Hiroti, MD, Tsuyoshi Yamanaka, MD, Toru Beppu, MD, Hideo Baba, MD, Kumamoto Regional Medical Center

P332 COLLABORATION OF LAPAROSCOPE AND ENDOSCOPE FOR THE TREATMENT OF OBSTRUCTIVE JAUNDICE WITH DUODENAL DIVERICULUM Saseem Poudel, MD, Kazuyuki Yokoyama, MD, PhD, Hiroki Chiba, MD, PhD, Hideaki Yoshida, MD, PhD; Yoichi Kyoukai Hospital

P333 EXPERIENCE WITH SINGLE-INCISION LAPAROSCOPIC CHOLECYSTECTOMY IN PATIENTS WITH PREVIOUS UPPER ABDOMINAL SURGERY Nana Makino, MD, Nobumi Tagaya, PhD, Yawara Kubota, MD, Kazuyuki Saito, MD, Takashi Okuyama, MD, Yoshitake Suganuma, PhD, Hidemaro Yoshida, PhD, Masatoshi Oya, PhD; Department of Surgery, Dokkyo Medical University Koshigaya Hospital

P334 LAPAROSCOPIC CHOLECYSTECTOMY FOR LEFT- SIDED GALLBLADDER IN SITU INVERSUS TOTALIS Mingwei Ni, MD, PhD, Yi Chen, MD; New York Hospital Medical Center of Queens

P335 THE DEVICE OF HEPATIC SUBSEGMENT IDENTIFICATION WHICH AIMED AT PURE LAPAROSCOPIC HEPATECTOMY Masahiko Sakoda, MD, Shinichi Ueno, MD, Satoshi Iino, MD, Koji Minami, MD, Kei Ando, MD, Yota Kawakami, MD, Motoyuki Hashiguchi, MD, Hiroshi Kurahara, MD, Yukou Maki, MD, Kousai Maemura, MD, Hiroyuki Shinchi, MD, Shoji Natsugoe, MD, Shinichiro Mori, MD; Department of Digestive Surgery, Breast and Thyroid Surgery, Kagoshima University School of Medicine

P336 SINGLE CENTER EXPERIENCE OF LAPAROSCOPIC THERAPY FOR INSULINOMA Yu Wenbin, MD, PhD, Hu Sanyuan, MD, PhD, Zhang Guanyong, Zhan Hanxiang, Liu Shaozhuang, Wang Xiaoyang; Department of general surgery, Qilu hospital of Shandong University

P337 EVALUATION OF CLINICAL OUTCOME OF EARLY LAPAROSCOPIC CHOLECYSTECTOMY FOR ACUTE CALCULUS CHOLECYSTITIS P N Agarwal, MS, FICS, Sushant Verma, MS; MAMC AND LNH DELHI INDIA

P338 TRANS UBILICAL APPROACH USING ZIGZAG INCISION FOR LAPAROSCOPIC DISTAL PANCREATECTOMY Kosei Maemura, Yuko Maki, Shinichirou Mori, Hiroshi Kurahara, Satoshi Iino, Masahiko Sakoda, Shinichi Ueno, Hiroyuki Shinchi, Sonshin Takao, Shoji Natsugoe, Kagoshima University, Department of Digestive Surgery

P339 SAFE AND SURE PANCREATICOgastrostomy WITH LARGE INVAGINATION OF THE PANCREATIC STUMP AFTER RESECTION OF THE PANCREAS HEAD IN LAPAROASSISTED PANCREATECOduodenECTOMY Masayuki Tori, MD, Hiroki Akamatsu, MD, Takeshi Omori, MD, Katsuhide Yoshidome, MD, Shinichi Yoshidome, PhD, Toshirou Nishida, MD; Osaka Police Hospital

P340 PREOPERATIVE CLINICAL PREDICTORS OF CHOLEDOCHOLITHIASIS COMPARED TO RADIOLOGICAL IMAGING Bora Koc, MD; Department of Surgery, Okmeydani Training and Research Hospital

P341 METABOLIC AND INFLAMMATORY RESPONSES AFTER ERC PROCEDURE AS A MINOR SURGERY Gokhan Tolga Adas, MD, Ahu Kemik, MD, Mine Adas, md, Bora Koç, md, Emin Gurbuz, md, Servet Karahan, prof; Okmeydani Training and Research Hospital, Department of Surgery/Istanbul
P342 COMPARISON OF LAPAROSCOPIC COMMON BILE DUCT EXPLORATION AND ERCP/S LC FOR CHOLEDOCHOLITHIASIS: A PROSPECTIVE RANDOMIZED STUDY
Bora Koc, md, Servet Karahan, prof, Gokhan Tolga Adas, md, Ayhan Ozsoy,md; Department of Surgery, Okmeydan Training and Research Hospital

P343 IS LCBE A SAVIOR FOR FAILED ENDOSCOPIC BILE DUCT STONE EXTRACTION
Bora Koc, md, Servet Karahan, prof, Gokhan Tolga Adas, md, Ayhan Ozsoy; Department of Surgery, Okmeydan, Training and Research Hospital

P344 ROUTINE CHOLANGIOGRAPHY AND THE TREATMENT OF CHOLEDOCHOLITHIASIS: OUR EXPERIENCE IN TRANSITIONING FROM THE TRADITIONAL FOUR PORT CHOLECYSTECTOMY TO SILS AND BEYOND.
Ibrahim Daoud, MD, Randall Kimball, MD, Brendan O’Connell, MD, Brian Pellini, MD, Stanton Smith, MD; St. Francis Hospital, Hartford, CT

P345 SHORT-TERM RESULTS OF LAPAROSCOPIC TRANSHEPATIC TRANSPEPTICOMIC INTRAOPERATIVE RADIOFREQUENCY ABLATION FOR LIVER TUMORS LOCATED BENEATH THE DIAPHRAGM
Kimilaka Tanaka, Tetsufumi Kojima, Etsuo Hiraguchi, Hideaki Hashida, Eiji Tamoto, Mitsui Ueno; Hakodate central general hospital

P346 LAPAROSCOPIC CHOLECYSTECTOMY IN SITUS INVERSUS TOTALIS PATIENT COMPICATED BY CHOLANGIOCARCINOMA
Sharique Nazir, MD, Cherry Song, DO, Syed A Rizvi, DO, Fausto Vinces, DO, , FACOS, Galina Glinik, MD, FACS; Lutheran Medical Center, Brooklyn, New York

P347 TRANSUMBILICAL SINGLE-INCISION LAPAROSCOPIC CHOLEDOCHOLITHIOTOMY USING CONVENTIONAL INSTRUMENTS: THE FIRST FIFTEEN CASES
Shudong Wu, Tian Yu, Chunhui Chen, Yongsheng Chen; Department of the Second General Surgery, Sheng jing Hospital of China Medical University, Shenyang City, Liaoing Province, People’s Republic of China

P348 MINIMALLY INVASIVE TREATMENT OF CHOLEDOCHOLITHIASIS
Myhaylo Nychytlaylo, MD, Prof, Petro Ogorendik, MD, Oleksandr Ltyvynenko, MD, Anatolii Skums, MD, Andrey Deynychenko, PhD, Oleksandr Ltyvyn, PhD, Valeriy Bilyaev; National Institute of Surgery and Transplantology named by A.A.Shalimov

P349 SILS CHOLECYSTECTOMY
Adrián M Maghír, MD, PhD, George E Dejeu, MD, Pravish R Sookha, MD, PhD; Spitalul Pelican Oradea, Romania

P350 CHOLEDOCOPOFY - OUR EXPERIENCE
Adrian M Maghír, MD, PhD, Teodor Maghír, MD, PhD, Marius Sirlea, MD, George E Dejeu, MD; Spitalul Pelican Oradea, Romania

P351 ROBOTIC ASSISTED LAPAROSCOPIC ENABLES HIGH-RISK BILIARY SURGERY
John C LaMattina, MD, Benjamin Philosophe, MD, PhD, Mark D Kligman, MD, Rolf N Barth, MD; Albert Einstein Healthcare Network

P352 LAPAROSCOPIC LIVER BIOPSY- ESSENTIAL FOR DIAGNOSING HERPES HEPATITIS
Heidi Miller, MD, Jay J Strain, MD, Jihan Hegazy, MD, Sarah Perloff, DO, Amit R Joshi, MD; Albert Einstein Healthcare Network

P353 SUCCESSFUL INTRAOPERATIVE DRAINAGE OF PANCREATIC FISTULAS FOLLOWING PANCYSTECTOMIC RESECTIONS USING ERCP
Kristina Spate, MD, Hannah Palin, Michael Egger, MD, Gary C Vitale, MD; Department of Surgery, University of Louisville

P354 LAPAROSCOPIC TREATMENT OF HEPATIC HYDATID DISEASE
Lucian Panait, MD, Ionut E Jordache, MD, Octavian D Unc, MD; Drexel University College of Medicine, Philadelphia, PA; Ohio State University, Columbus, Ohio; University of Turin, Turin, Italy

P355 FLUORESCENT CHOLANGIOGRAPHY IN LAPAROSCOPIC CHOLECYSTECTOMY: EXPERIENCE IN ARGENTINA
Pedro Ferraina, Fernando Dip, Lisandro Alle, Mario Nahmod, Luis Sarotto, Francisco Suarez Anzorena; Sanatorio Anzorena

P356 LIVER ABESSION AFTER ERCP AND LAPAROSCOPIC CHOLECYSTECTOMY. A CASE REPORT
Alexander Ramirez Valderrama, MD, Soni Chouseb, MD, Litong Du, MD, PhD;

New York Hospital Queens

P357 TOTALLY LAPAROSCOPIC ANATOMIC LIVER RESECTIONS. SURGICAL RESULTS
Jose Galindo, MD, Fabrizio Moisan, MD, Juan F Guerra, MD, Marcel Sanhueza, MD, Jorge Martinez, MD, Nicolas Jarufe, MD; Pontificia Universidad Católica de Chile

P358 NEW PARADIGM IN LAPAROSCOPIC LIVER RESECTION: THE “POUCH-IN-A-POUCH” TECHNIQUE
Minoru Tanabe, MD, Yuta Abe, MD, Taizo Hibi, MD, Osamu Itano, MD, Masahiro Shinoda, MD, Minoru Kitago, MD, Hiroshi Yagi, MD, Norihito Wada, MD, Yoko Kitagawa, MD; Department of Surgery, Keio University School of Medicine

P359 MODALITIES FOR PanCREATIC PSEUDOCYST DRAINAGE
Sami S Judeaeb, MBBSTeaching, Assistant, KAU, Mohammed Almasrari, Consultant, General, and, Laparoscopic, Surg; King Abdulaziz University

P360 A PROSPECTIVE STUDY TO COMPARE THE OUTCOMES AFTER PRIMARY LAPAROSCOPIC CBD EXPLORATION AND LAPAROSCOPIC CBD EXPLORATION FOLLOWING FAILED ENDOSCOPIC STONE EXTRACTION IN PATIENTS WITH CONCOMITANT GALL STONES AND COMMON BILE DUCT STONES
Virinder K Bansal, MS, FACS, Pramod Garg, MD, DM, M C Misra, MS, FRCS, FACS, Karthik Rajan, Subodh Kumar, Atin Kumar, Ragini Kiliambi; Department of Surgical Disciplines, Gastroenterology and Radiology, All India Institute of Medical sciences, New Delhi

P361 PURE LAPAROSCOPIC SURGERY FOR REPEAT HEPATECTOMY
Shin Nakahira, MD, Yutaka Takeda, MD, Naoyoshi Hashimoto, MD, Katsunori Matsushita, MD, Hiroki Kusama, MD, Hiroshi Kawashima, MD, Yosuke Mukai, MD, Michiko Hanamaka, MD, Atsushi Takeno, MD, Hideki Sakisaka, MD, Rei Suzuki, MD, Hirokazu Taniguchi, MD, Takeishi Kato, MD, Shigeki Tamura, MD; Dept. of Digestive Surgery, Kansai Rosai Hospital

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Jose F Noguera, MD, PhD, Angel Cuadrado, MD, PhD, Jose V Roig, MD, PhD; Consorcio Hospital General Universitario de Valencia and Hospital Son Llúter

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Jose Daniel Lozada Leon, MD, Angel Reyes Dorantes, MD, Clodaoarla Durthy Lozada Leon, MD, Fred. Garretto Arredondo, MD, Aide Colin Armenta, SN; Santa Monica hospital Cuernavaca, Morelos, Mexico

P365 THE EVOLUTION OF MANAGEMENT OF CBD STONES IN SCOTLAND
K Knight, MBChB, MRCS, Z Ahmed, MBChB, MRCS, Ahm Nasser, FRCS, M Alwahid, M Jenkinson, MD; Monklands District General Hospital, Lanarkshire, Scotland; University of Glasgow, Scotland

P366 LAPAROENDOSCOPIC RIGHT HEPATECTOMY -- SELECTIVE HILUM DISSECTION TECHNIQUE
Kuixuan Chen, MD, Jianming Wu, MD, Kuo, Haixiang Cheng, Prof, Division of General Surgery, Department of Surgery, Far-Eastern Memorial Hospital, New Taipei City, Taiwan

P367 TOTALLY LAPAROSCOPIC HEPATIC RESECTION FOR LEFT BILIARY SYSTEM LITHIASIS
G. Basili, MD, Nicola M Romano, MD, Giancarlo M Basili, MD, Giuseppe Celona, MD, Dario M Pietrasanta, MDPhd, Valerio M Gentile, MD, Orlando M Goletti, Prof, General surgery unit F. Lotti Hospital

P368 IS ELECTIVE LAPAROSCOPIC CHOLECYSTECTOMY A SAFE SUPERVISED TEACHING PROCEDURE?
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P37 THE ROLE OF LAPAROSCOPIC SURGERY IN DEVELOPING COUNTRIES: A REVIEW Tiffany E Chao, MD, MPH, Jessica Opoku-Anane, MD, Lars Hagander, MD, Rebecca Maine, MD, John G Meara, MD, DMD, MBA; Massachusetts General Hospital; Harvard Medical School Program in Global Surgery and Social Change, Children’s Hospital Boston, Lund University Faculty of Medicine, University of California San Francisco

P372 MECHANICAL EVALUATION OF ARTICULATED INSTRUMENTS AND CROSS-HANDED MANIPULATION IN LAPARO-ENDOSCOPIC SURGERY Jiangfan Zhu, MD, Anan Xu, MD, Xiaofeng Liu, MD, Yuantao Su, MD; East Hospital, Tongji University School of Medicine

P373 MECHANICAL EVALUATION OF THREE ACCESS DEVICES FOR LAPARO-ENDOSCOPIC SINGLE SITE SURGERY Jiangfan Zhu, MD, Xiaofeng Xie, MD, Chengli Song, PhD, Dongcheng Zhang, PhD, Qianlin Zou, PhD; East Hospital, Tongji University School of Medicine

P374 PRELIMINARY RESULTS OF PET/MRI IN ASSESSING GASTROINTESINAL CANCER: NEW TECHNOLOGY TO ADVANCE OUR STAGING ABILITY? Sasar Partwiti, MD, Deborah S Keller, MD, Raj Pasupati, MD, Rodney Ellis, MD, Brian Traugheber, MD, Peter Faulhaber, MD, Connor P Delaney, MD, MCH, PhD; University Hospitals-Case Medical Center

P375 DRIVING EXPERIMENT OF AN IMPROVED PROTOTYPE HYDRAULIC-DRIVEN CAPSULE COLONOSCOPE Kazuhiko Shimohara, MD, PhD; Tokyo University of Technology , School of Health Sciences

P376 EIGHTY SEVEN CENTS SLIP-KNOT INSTEAD OF ENDOLOOP I Bulent Cetindag, MD, Abraham Sayon, Chad Gonczy, MD, Imran Hassan, MD; Southern Illinois University School of Medicine

P377 COMPARISON OF SINGLE-SITE AND TRADITIONAL LAPAROSCOPIC ACCESS FOR INTRACORPOREAL SUTURING AND KNOTTING TECHNIQUE Jivatan Gal, MD,MPhD, Zoltan Szabo, PhD, Miklos Csotelo, MD, Gyorgy Weber, MD, PhD; Telki Privat Hungaroplastik M.T. Institute, San Francisco, CA, USA,Department of Surgical Research and Technique,Semmelweis Medical School of Budapest, Hungary

P378 APPLICATION OF THE HYPEREYE MEDICAL SYSTEM FOR ENDOSCOPIC LOW ANTERIOR RESECTION Michiya Kobayashi, MD, PhD, Takayuki Sato, MD, PhD, Takeki Sugimoto, MD, PhD, Ken Okamoto, MD, PhD, Diaise Nakamura, Ken Dabana, MD, PhD, Tsutomu Namikawa, MD, PhD, Kazuhiro Hanazakki, MD, PhD; Kochi Medical School

P379 PLUME CHARACTERISTICS (EMISSION DIRECTION, TYPES AND SETTLEMENT TIME) AFFECTS VISUAL FIELD OBSTRUCTION GENERATED BY LAPAROSCOPIC ULTRASONIC DEVICES (LUD). Fernando J Kim, MD, David Seh FA, Altax Ponompeo, MD, Wilson Molina, MD; Denver Health Medical Center

P380 SINGLE-INCISION LAPAROSCOPIC CHOLECYSTECTOMY USING HANDS-FREE RETRACTION SYSTEM, FLEXIBLE PORT AND PRE-BENDING FORCEPS Nobumichi Tagaya, PhD, Yawara Kubota, MD, Nana Makino, MD, Asami Suzuki, MD, Kosuke Hirano, MD, Kazuyuki Saito, MD, Takashi Okuyama, PhD, Shinichiro Kotsuki, PhD, Emiko Takeshita, PhD, Hidemaro Yoshida, PhD, Yoshitake Sugamata, PhD, Shinichi Sameshima, PhD, Masatoshi Oya, PhD; Department of Surgery, Dokkyo Medical University Koshigaya Hospital

P381 EVALUATING MINIMALLY INVASIVE SURGERY (MIS) ASSESSMENT METRICS Samii AbuSaleemeh, PhD, Brent Seales, PhD; University of Kentucky

P382 FLS TASKS CAN BE USED TO IDENTIFY ERGONOMIC DIFFERENCES BETWEEN LAPAROSCOPIC AND ROBOTIC SURGERY Ahmed M Zihnhi, MD, MPH, Ikechukwu Ohu, MS, Jaime A Cavallo, MD, MPH, Jenny Ousley, BS, Solhyung Cho, PhD, Michael M Awad, MD, PhD; Department of Surgery, Section of Minimal Invvasive Surgery, Washington University School of Medicine, St. Louis, Missouri; Department of Industrial and Manufacturing Engineering, Southern Illinois University Edwardsville; Edwardsville, IL

P383 IMPACT OF MODERN HIGH FREQUENCY ELECTROSURGICAL UNIT ON LAPAROSCOPIC HELLER MYOTOMY FOR ACHALASIA: A HISTORICAL COMPARISON Masashi Higeta, MD, Kiyokazu Nakajima, MD, FACS, Tsuyoshi Takahashi, MD, Makoto Yamazaki, MD, Hiroshi Miyata, MD, Yukinori Kurokawa, MD, Shuji Takiguchi, Masaki Mori, MD, FACS, Yuichi Doki, MD; Department of Gastrointestinal Surgery, Osaka University Graduate School of Medicine, Osaka, Japan

P384 SMALL VOLUME INSTILLATION IN URINARY BLADDER IS AS ACCURATE AS THE STANDARD VOLUME FOR INTRA-ABDOMINAL PRESSURE MEASUREMENTS Yanyong Thonghongsa, MD, Promprian Wattanawigdig, MD, Pananot Yimcharoen, MD, Apichart Floyongsang, MD; Department of Surgery, Bhumibol Adulyadej Hospital, Bangkok, Thailand

P385 ANALYSIS OF SURGEON POSTURE AND STRESS-RELATED FORCE PATTERNS DURING LAPAROSCOPIC SURGERY Oliver Varban, MD, Thomas Armstrong, PhD, University of Michigan Health System

P386 THE SAFETY AND EFICACY OF A NEW LIVER RETRACTOR FOR THE PERFORMANCE OF LAPAROSCOPIC UPPER GASTROINTESTINAL SURGERY TV A PRECLINICAL EVALUATION STUDY Philip Chiu, MD, Billy Leung, Stanley Sy, Cecilia Chan, Simon Wong, FRCSEd, Carmen Poon, PhD; Department of Surgery, CUHK Jockey Club Minimally Invasive Surgical Skills Center, The Chinese University of Hong Kong

P387 ENDOSCOPIC THYROIDECTOMY AND ROBOTIC THYROIDECTOMY: UTILIZING THE THYROID SPACE CREATOR Suthep Udomsawangsap, MD, Kanokkan Tepmalai, MD, Ajajna Techagumpuch, MD, Suppa-ut Pungpapong, MD, Chadin Tharavej, MD, Patpong Navicharern, MD; Chula Minimally Invasive Surgery Center, Chulalongkorn University, Bangkok, Thailand

P388 SURGEONS PERFORM MORE PROACTIVE EYE MOVEMENTS THAN NOVICES WHEN PERFORMING LAPAROSCOPIC SURGERY Bin Zheng, MD, PhD, Xianta Jiang, Msc, Geoffrey Tien, Msc, M. Stella Atkins, PhD; University of Alberta

P389 PROSPECTIVE EVALUATION OF BARRIERS TO MICROLAPAROSCOPY William C Beck, MD, Rebecca Baucum, MD, William J Lee, MS, Michael D Holzman, MD, MPH, Kenneth W Sharp, MD, Benjamin K Poulose, MD, MPH; Vanderbilt University Medical Center

P390 THE LAST STAPLER DILEMMA IN LAPAROSCOPIC SLEEVE GASTRECTOMY Kanokkan Tepmalai, MD, Warit Utanwutipong, MD, Ajajna Techagumpuch, MD, Mahadevan D. Tata, MD, Suthep Udomsawangsap, MD, Suppa-ut Pungpapong, MD, Chadin Tharavej, MD, Patpong Navicharern, MD; Chula Minimally invasive Surgery Center, Department of surgery, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand 10330.

P391 LONG-TERM FOLLOW UP OF A NEW, HYBRID TECHNIQUE FOR MINI-LAPAROSCOPIC CHOLECYSTECTOMY: IMPLICATIONS FOR THE COMMUNITY-BASED SURGEON Florias A Morjese, MD, FACS, Brian P Rose, BS, Owen Drive Surgical Clinic of Fayetteville

P392 3D IMAGING IN LAPAROSCOPY: IMPROVING TRAINING & SKILL ACQUISITION FOR JUNIOR TRAINEES Yuk Man
P393 NEW CONCEPT FOR LAPAROSCOPIC SURGERY USING PERBEND INSTRUMENTS AND FLEXIBLE TROCAR, M. Yamagata, MDPHd, M. Matsuda, MDPHd, S. Hayashi, MD, J. Sugiyama, MD, Y. Morishita, MD, K. Satoh, MD, S. Morita, MD, T. Takayama, MDPHd; Department of Digestive Surgery, Nihon University.

P394 A COMPARISON OF THE LIGASURE AND HARMONIC SCALPEL IN LAPAROSCOPIC GASTRECTOMY, You-Na Kim, MD, Sang Yong Kim, MS, Hyoung-I Kim, MD; Yonsei University, College of Medicine.

P395 ERGONOMIC ISSUES IN MINIMALLY INVASIVE SURGERY: IS IT TIME TO EDUCATE THE EDUCATORS, Alok K Gupta, MD, Namrata Singhania, MD; St Agnes Hospital, Baltimore, MD; Franklin Square Hospital, Baltimore, MD.

P396 A NOVEL COVERT LAPAROSCOPIC CHOLECYSTECTOMY USING BY USING 2 MM TROCAR-LESS NEEDLE-SHAPE INSTRUMENTS, Hai Hu, Professor, MD, PhD, Anan Xu, MD, Guoqing Dai, MD, Anhua Huang, MD, Weidong Wang, MD, Jiangan Zhu, Professor, MD, Bingguan Chen, Professor, MD, PhD; Tongji University School of Medicine, Shanghai East Hospital.

P397 INSTRUMENT TIP DISPLACEMENTS DURING MANUAL AND POWERED LAPAROSCOPIC STAPLER USE, Donald R Peterson, PhD, MS, Tarek Tantawy, MS, Drew Seils, MS, Angela S Kueck, MD; University of Connecticut Health Center.

P398 COMPARISON OF THE TIME NEEDED TO COMPLETE A STAPLE FIRING SEQUENCE BETWEEN A MANUAL AND POWERED LAPAROSCOPIC STAPLER, Donald R Peterson, PhD, MS, Drew Seils, MS, Tarek Tantawy, MS, Angela S Kueck, MD; University of Connecticut Health Center.

P399 LAPAROSCOPIC SLEEVE GASTRECTOMY IN MORBID OBESITY AND TYPE 2 DIABETES - OUTCOME IN CHINESE, Simon K Wong, MD, Shirley Y Liu, MD, Candice L Lam, RN, Enders K Ng, MD; The Chinese University of Hong Kong.

P400 LAPAROSCOPIC-ASSISTED ERCP IN PATIENTS WITH ROUX-EN-Y ANATOMY, Terri A Zomeret, BS, MFAS, Jennifer A McLeIan, MD, Zarya Kortez, BS, Scott J Creason, PhD, David E Scheeres, MD, FACS, James A Foote, MD, FACS; Michigan State University/Grand Rapids Medical Education Partners.

P401 LAPAROSCOPIC SLEEVE GASTRECTOMY IN MORBIDLY OBESE PATIENTS WITH INFLAMMATORY BOWEL DISEASE, Sang-Moon Han, MD, Renae Moon, MD, Sung Soo Park, MD, Carlos Esquivel, MD, Emanuel Lo Menzo, MD, Samuel Szomstein, MD, Steven Weexner, MD, Raul Rosenthal, MD; The bariatric and metabolic institute, Cleveland Clinic Florida. Weston, Florida.

P402 OUTCOMES OF LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING: A SINGLE INSTITUTION’S FIVE YEAR EXPERIENCE, Elizabeth A Devec, MD, Robert Kelly, MD, Willie Melvin, MD, Ronald H Clements, MD, Brandon Williams, MD, Michael Holzman, MD, Naji Abumrad, MD; Vanderbilt University.

P403 DOES PREGESTATIONAL DIABETES MELLITUS AFFECT WEIGHT LOSS OUTCOME AFTER BILIOPANCREATIC DIVERSION WITH DUODENAL SWITCH? Iswanto Sucandy, MD, Gintaras Antanavicius, MD, FACS; Abington Memorial Hospital, Department of Surgery.

P404 RESOLUTION OF DIABETES MELLITUS, HYPERTENSION, AND HYPERLIPIDEMIA AFTER LAPAROSCOPIC VERTICAL SLEEVE GASTRECTOMY, Iswanto Sucandy, MD, Gintaras Antanavicius, MD, FACS, Fernando Bonanni, MD, FACS; Abington Memorial Hospital, Department of Surgery.

P405 HUMAN STOMACH TISSUE PROPERTIES AS A FUNCTION OF TIME FROM EXCISION, Ligan Rawlins, MD, Melissa Rawlins, MPA, PAC, Donovan Teel, MD; Wright State University.

P406 CHOLECYSTECTOMY INCIDENCE AFTER BARIATRIC SURGERY: COMPARING GASTRIC BYPASS, GASTRIC BANDING AND SLEEVE GASTRECTOMY, Rena Moon, MD, Andre Teixeira, MD, Muhammad Jawad, MD, FACS; Department of Bariatric Surgery, Orlando Regional Medical Center, Bariatric and Laparoscopy Center.

P407 LAPAROSCOPIC CHOLEDOCHODUGENOSTOMY AS DEFINITIVE TREATMENT FOR COMMON DUCT STONES FOLLOWING ROUX-EN-Y GASTRIC BYPASS SURGERY, Christopher Ducoin, MD, Rena Moon, MD, Andre Teixeira, MD, Muhammad Jawad, MD, FACS; Department of Bariatric Surgery, Orlando Regional Medical Center.

P408 CAUSES OF SMALL BOWEL OBSTRUCTION AFTER GASTRIC BYPASS: A REVIEW OF 1000 CASES AT A SINGLE INSTITUTION, Luke Elms, MD, Rena Moon, MD, Andre Teixeira, MD, Muhammad Jawad, MD, FACS; Department of Bariatric Surgery, Orlando Regional Medical Center.

P409 LAPAROSCOPIC SLEEVE GASTRECTOMY FOR MORBID OBESITY IN A JAPANESE INSTITUTE, Masayuki Ohta, MD, Yuichiro Kawano, MD, Hitotoshi Eguchi, MD, Takahide Kawasaki, MD, Kazuhiro Yada, MD, Hiroki Uchida, MD, Yukio Iwashita, MD, Seigo Kitano, MD; Department of Surgery I, Oita University Faculty of Medicine, and Oita University.

P410 THE MINI-GASTRIC BYPASS: SURVEY RESULTS OF 102 BARIATRIC SURGEONS FROM 23 COUNTRIES, T. Rutledge, MD; The Centers for Laparoscopic Obesity Surgery.

P411 COMPARISON OF GASTROjejunal ANASTOMOSIS COMPLICATIONS IN ROUX-EN-Y GASTRIC BYPASS PATIENTS: HAND-SEWN VS. 25MM CIRCULAR STAPLER, Kichideep S Gill, MD, PhD, Reid Barker, BSc, Kevin A Whitlock, BSc, Talal Ali, MD, Xinzhe Shi, MPH, Daniel W Birch, MD, Bariatric Karmali, MD; University of Alberta.

P412 MINIMIZING THE LEAKAGE AFTER SLEEVE GASTRECTOMY, Mohamed Bekehiet, MSc, MSC, MRCs, MCPS, Khaled Katri, Professor, Wael N Abdelhamid, Professor, El Saed El Kayal, Professor; Department of Surgery, Alexandria main University Hospital.

P413 COMPARISON OF SHORT-TERM OUTCOMES BETWEEN LAPAROSCOPIC GREATER CURVATURE PLICATION AND LAPAROSCOPIC SLEEVE GASTRECTOMY, Dijilan Shen, MD, Huan Ye, MD, Yuedong Wang, MD, PhD, Yun Ji, MD, Xiaoli Zhan, MD, Jinhui Zhu, MD, Wei Li, MD; Department of General Surgery, Second Affiliated Hospital Zhejiang University College of Medicine, Hangzhou 310009, China.

P414 COMPARISON OF TWO GASTRIC BAND (GB) ADJUSTMENT STRATEGIES: INTRAOPERATIVE CALIBRATION USING THE ENDOLUMINAL FUNCTIONAL LUMEN IMAGING PROBE (ELF) PLUS MONTHLY FOLLOW UP VS. NO INTRAOPERATIVE ADJUSTMENT WITH MONTHLY FOLLOW UP IN THE 1ST YEAR, Asraf Haddad, MD, Murad Bani Hani, MD, Dominic Nelson, MS, Andrew Averbach, MD, FACS; St Agnes Hospital.

P415 FEASIBILITY OF INTRAOPERATIVE GASTRIC BAND (GB) ADJUSTMENT WITH THE ENDFLIP SYSTEM, Asraf Haddad, MD, Dominic Nelson, MS, Murad Bani Hani, MD, Andrew Averbach, MD, FACS; St. Agnes Hospital.

P416 HISTOPATHOLOGIC FINDINGS IN THE RESECTED STOMACH SPECIMEN OF THE SLEEVE GASTRECTOMY, Benjamin L Clapp, MD; Providence Memorial Hospital.

P417 ANTI-DIABETIC AND WEIGHT LOSS EFFECT OF SLEEVE GASTRECTOMY AND SLEEVE BYPASS IN JAPANESE MORBID OBES patients, Introduction of Bariatric surgery in Japanese hospital, Takeyi Naoki, MD, FACS, T Miyachi, MD, FACS, H Morikawa, MD, M Kaky, MD, M Nagao, MD, S Haneda, MD, S Ohnuma, MD, H Sasaki, MD, K Kudo, MD, T Okada, MD, H Hayashi, MD, H Yoshida, MD, F Motsu, MD, K Katayose, MD, K Mur, MD, C Shibata, MD, M Unno, MD; Department of Surgery, Tohoku University Hospital.

P418 A NEW ANTRIREFLUX TECHNIQUE ASSOCIATED TO SLEEVE GASTRECTOMY, Strachan Technique, Ivan Strachan, MD, Gianna Ramos, MD; Centro Internacional de
Cirugía avanzada

P429 LAPAROSCOPIC SLEEVE GASTRECTOMY AS A TREATMENT MODALITY FOR PROLAPSING ADJUSTABLE GASTRIC BAND COMPROMISED BY GASTRIC NECROSIS
Minal Joshi, MD, Srikanth Eathiraju, MD, Krystyna Kabata, PAC, Michael Baek, MS, IV, Piotr Gorecki, MD; Department of Surgery, New York Methodist Hospital

P430 LAPAROSCOPIC REVERSAL OF GASTRIC BYPASS WITH OR WITHOUT ADDITION OF A SLEEVE GASTRECTOMY
Diana Kwun, MD, Gregory Broderick-Villa, MD, Teresa Kim, MD, Alay Upadhyay, MD; Alta Bates Summit Medical Center

P431 SYSTEMATIC REVIEW AND META ANALYSIS OF EFFECT OF PRE OPERATIVE LOW CALORIE DIETS IN BARIATRIC SURGERY
Saurav Chakravarthy, MBBS, MRCS, MS, A G Patel, FRCS, MS; King’s College Hospital, London

P432 INTERNAL HERNIA THROUGH THE SPACE OF PETERSON FOLLOWING BARIATRIC SURGERY: INCIDENCE, TREATMENT, AND POTENTIAL CURE
Andy Smith, MD, W. Borden Hooks III, MD, William W Hope, MD, James A Harris, MD, David R Miles, MD; New Hanover Regional Medical Center

P433 PAIN CONTROL IN BARIATRIC PATIENTS: A PROSPECTIVE TRIAL COMPARING THE EFFECTIVENESS OF EXPAREL VERSUS THE ON Q PAIN BAND
Franchell Richard, MD, Terive Dupereier, MD; University of Texas Health Science Ctr in Houston at Bariatric Medical Institute

P434 EARLY EXPERIENCE OF LAPAROSCOPIC SLEEVE GASTRECTOMY FOR MORBID OBESITY
Georgy Nashed, phd, Wael Aziz, phd, Mohamed Yehia, mrsc; cairo university hospital

P435 A COMPARATIVE STUDY OF ROBOTIC AND LAPAROSCOPIC GASTRIC BYPASS AS A TREATMENT FOR MORBID OBESITY
Anthony M Gonzalez, MD, FACS, FASMBS, Jorge A Rabaza, MD, FACS, FASMBS, Rupa Seetharamaiah, MD, FACS, Chavan Donkor, MD, MD; Boston University Medical Center, MD, Jonathan Arad, MD; Baptist Health South Florida, Florida International University Herbert Wertheim College of Medicine

P436 MANAGEMENT OF LEAKS POST SLEEVE GASTRECTOMY:
Mohd Yasser Alkayyal, MD, FRCSI, FACS, Mazen Taha, MD, Ayman Saleh, MD, Hamouda Alalari, MD, Fawaz C torab, MD, PhD; Tawam hospital in affiliation with Johns Hopkins Medicine,FMHS UF University

P437 LAPAROSCOPIC SLEEVE GASTRECTOMY: A COMMUNITY SURGEON’S INITIAL EXPERIENCE, TECHNIQUE AND OUTCOMES
John S Nelson, MD, John P Sharpe, MD, Nathaniel F Stoikes, MD, David Webb, MD, Guy R Voeller, MD, George Woodman, MD; Midsouth Bariatrics and University of Tennessee Health Science Center, Memphis, Tennessee

P438 EFFICACY OF VITAMIN D SUPPLEMENTATION FOLLOWING ROUX-EN-Y BYPASS AND GASTRIC SLEEVE SURGERIES
Carolyn E Moore, PhD, MD, Monica Flinn, RN, Vadim Sherman, MD, FACS, FRCS; The Methodist Hospital and Texas Woman’s University, Houston, Texas

P439 THE EfficACY OF LAPAROSCOPIC MINI-GASTRIC BYPASS FOR TYPE 2 DIABETES IN OBESE PATIENTS: THE BEZMIALEM PRELIMINARY REPORT
Halil Coskun, MD, Suleyman Bozkurt, MD, Naim Memmi, MD, Gokhan Cipe, MD, Yeliz Emine Ersoy, MD, Oguzhan Karatepe, MD, Mustafa Hasbabecci, MD, Erhan Aysan, MD, Adem Akcakaya, MD, Mahmut Musliimanoglu, MD; Bezهماlem Vakif University School of Medicine Department of Surgery, Istanbul Turkey

P440 LAPAROSCOPIC SLEEVE GASTRECTOMY AT 2 OR 4 CM FROM THE PYLORUS, DOES IT CHANGE OUTCOMES, IF ANY?
Halil Coskun, MD, Gokhan Cipe, MD, Naim Memmi, MD, Yeliz Emine Ersoy, MD, Oguzhan Karatepe, MD, Mustafa Hasbabecci, MD, Erhan Aysan, MD, Adem Akcakaya, MD, Mahmut Musliimanoglu, MD; Bezهماlem Vakif University School of Medicine Department of Surgery, Istanbul Turkey

P441 SLEEVE VS FLATION: 256 CASES NONE-RANDOMIZED STUDY
Ali Fardoun, MD; Emirates International Hospital, Al-Ain, UAE

P442 ACHALASIA AFTER BARIATRIC SURGERY
Andrea Zelisko, MD, Hector Romero Talaman, MD, Ali Aminian, MD, Esam Batayah, MD, Kevin El-Hayek, MD, Stacy Brethauer, MD, FACS, Philip Schauer, MD, FACS, Thomas Rice, MD, FACS, Matthew Kroh, MD, FACS; Department of Surgery at Cleveland Clinic

P443 PREDICTORS OF SUCCESS AFTER LAPAROSCOPIC SLEEVE GASTRECTOMY: AN ANALYSIS OF SOCIOECONOMIC AND DEMOGRAPHIC FACTORS
Ameer Gomberawalla, MD, Thomas Willson, MD, Kimberley Mahoney, RN, Alfonso Torquati, MD, FACS, Rami Lufti, MD, FACS; Saint Joseph Hospital, Chicago Institute of Advanced Bariatrics

P444 CONVERSION FROM SLEEVE GASTRECTOMY TO GASTRIC BYPASS
Oscar E Brasecos, Gaston Borile, Mario Corengia, Guillermo Muzio, Juan M Riganti, Gabriel Menald, Jorge Bella, Guillermo Premoli, Santiago Juarez, Pedro R Martinez-Duartez, MD; FUNDACION FAVALORO AND HOSPITAL UNIVERSITARIO AUSTRAL

P445 LAPAROSCOPIC WEIGHT LOSS SURGERY IN THE SUPER-SUPER OBSESE POPULATION: A RETROSPECTIVE REVIEW
Sharique Nazir, MD, Jakub Bartnik, DO, Veshal Malhotra, Salvatore Docimo Jr, DO, MS, George S Ferzli, MD, FACS; Lutheran Medical Center,Brooklyn, New York

P446 EARLY DISCHARGE AFTER LAPAROSCOPIC VERTICAL SLEEVE GASTRECTOMY IS SAFE
Richard J Parent, MD, William D Fuller, MD; Scripps Green Hospital

P447 COMORBIDITY OUTCOMES OF THE REALIZE ADJUSTABLE GASTRIC BAND AT 3 YEARS
Kulmeet K Sandhu, MD, Adrienne Youdim, MD, Scott A Cunneen, MD, Sayeed Ikramuddin, MD, Natan Zundel, MD, Robert T Marema, MD, Edward H Phillips, MD, Cedars-Sinai Medical Center (Los Angeles, CA); University of Minnesota Medical Center (Minneapolis, MN), Cleveland Clinic Florida (Wesnot, FL): U.S. Bariatric (Fl. St. Augustine, FL); Ethicon Endo-Surgery, Inc (Cincinnati, Ohio)

P448 FASTING INSULIN AS A SURROGATE MARKER FOR CARDIAC RISK IN PATIENTS UNDERGOING BARIATRIC SURGERY
Zeenat Hasan, MD, Dan Eisenberg, MD; Stanford school of medicine and Palo Alto VA ICS

P449 EFFECTS OF A BARIATRIC PREOPERATIVE EXERCISE PROGRAM: A PILOT RANDOMIZED STUDY
Chao Li, MD, Gerald S Zavorsky, PhD, Do J Kim, MSC, Nicolas V Christou, MD, Liane S Feldman, MD, Francesco Carli, MD, MPHil; McGill University Health Centre, Montreal, Quebec, Canada and Marywood University, Scranton, PA

P450 SAME DAY DISCHARGE AFTER LAPAROSCOPIC SLEEVE GASTRECTOMY: OUR INITIAL EXPERIENCE
Ranjodh Singh, MD, Matthew Musielak, MD, Hassan Shabab, BS, Trace Curry, MD; The Jewish Hospital

P451 DECREASED LEVELS OF ESSENTIAL AMINO ACIDS FOLLOWING BARIATRIC SURGERY MAY REFLECT ALTERED MUSCLE METABOLISM
Dustin M Bermudez, MD, John R Pender, MD, William H Chapman, MD, Walter J Pories, MD, G. L. Dohn, PhD; Department of Surgery, Brody School of Medicine, East Carolina University

P452 WEIGHT REGAIN FOLLOWING ROUX-EN-Y GASTRIC BYPASS SURGERY
Luis C Zurita MV, MD, Radu Pescarus, MD, Izabela Apriaz, MD, Lukas Wasserman, MD, Dennis Hong, MD, FRSC, FACS, Mehran Anvari, MB, BS, PhD, FRCS, FACS, Scott Gmora, MD, FRCS; Department of Surgery, Centre of Minimal Access Surgery, St. Josephs Healthcare, Hamilton, ON, Canada

P453 PATIENT RETENTION RATES IN MEDIUM AND LONG-TERM GASTRIC BYPASS OUTCOME STUDIES
Luis C Zurita MV, MD, Radu Pescarus, MD, Dennis Hong, MD, FRSC, FACS, Mehran Anvari, MB, BS, PhD, FRCS, FACS, Scott Gmora, MD, FRCS; Department of Surgery, Centre of Minimal Access Surgery, St. Josephs Healthcare, Hamilton, ON, Canada

P454 REDUCED GLUCOGENIC AMINO ACIDS FOLLOWING BARIATRIC SURGERY ARE ASSOCIATED WITH RESOLUTION OF THE DIABETIC STATE
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P445 LAPAROSCOPIC SLEEVE GASTRECTOMY IN PATIENTS WITH END STAGE HEART FAILURE CAN BE PERFORMED SAFELY AND IS AN EFFECTIVE METHOD OF WEIGHT LOSS FOR SYMPTOM IMPROVEMENT AND ACCESS TO CARDIAC TRANSPLANTATION
Alyiah Kanji, MD, Dean J Mikami, MD, Yazhini Ravi, MD, Chithottathouthy Sudhakar, MBBS, Robert Higgins, MD, MSHA, Brad J Needleman, MD; The Ohio State University Wexner Medical Center

P446 SLEEVE GASTRECTOMY BOUGIE CALIBRATION WITH 34F VS 60F: WEIGHT LOSS, NUTRITIONAL INTAKE AND QUALITY OF LIFE
Camilo Boza, MD, Diego Barros, MD, Ana Palacio, José Salinas, MD, Ricardo Funke, MD, Gustavo Pérez, MD, Fernando Crovadi, MD, Alejandro Raddatz, MD; Pontificia Universidad Católica de Chile

P447 LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS AND ADJUSTABLE GASTRIC BAND WITH CONCUMITANT HIATAL HERNIA REPAIR IN THE NATIONWIDE INPATIENT SAMPLE
Benjamin J al-Haddad, MD, Robert B Dorman, MD, PhD, Nikolaus F Rasmus, BA, Yong Y Kim, MD, PhD, Sayeed Ikrumuddin, MD, Daniel B Leslie, MD; Division of Gastrointestinal Surgery, University of Minnesota, Minneapolis, MN

P450 IS LAPAROSCOPIC GASTRIC BYPASS A RELIABLE PROCEDURE AFTER AN ADJUSTABLE GASTRIC BAND?
Diego Barros, MD, José Salinas, MD, Ricardo Funke, MD, Alejandro Raddatz, MD, Luis Ibañez, MD, Gustavo Pérez, MD, Fernando Pimentel, MD, Camilo Boza, MD; Pontificia Universidad Católica de Chile

P449 LONG-TERM OUTCOMES OF REVISION OF FAILED BARIATIC OPERATIONS WITH WEIGHT REGAIN TO ROUX-EN Y GASTRIC BYPASS
Daniel McKenna, MD, Samer Mattar, MD, Daniel Mwanza, DO, Michael Burchett, DO, Lori Blythe, APRN, Jennifer Choi, MD, Don Selzer, MD; Indiana University School of Medicine

P450 ENDOSCOPIC MANAGEMENT WITH AN OVER-THE-SCOPE-CLIP (OTSC) BEAR CLAW CLIP OF A LATE LEAK AFTER SLEEVE GASTRECTOMY: A CASE REPORT
Alexander Ramirez Valderrama, MD, Soni Choussleb, MD, Stephen Merola, MD, FACS; New York Hospital Queens

P451 LACK OF KNOWLEDGE REGARDING THE RISK AND LONG-TERM EFFECTS OF ADOLESCENT BARIATRIC SURGERY IS A PRIMARY DETERMINANT PREVENTING SURGICAL REFERRAL
Tammy I Kindel, MD, PhD, Steven J Kindel, MD, Alex Nagle, MD; Northwestern Memorial Hospital, Robert H Lurie Children's Hospital of Chicago, Northwestern University Feinberg School of Medicine

P452 THE IMPACT OF SLEEVE GASTRECTOMY ON RESOLUTION OF RELUX SYMPTOMS IN THE MORBIDLY OBESE
Ajay N Ranade, MD, Jeremy P Parcell, MD, Corrigan L McBride, MD, Vishal M Kothari, MD, Matthew R Goede, MD, Dmitry Oleynikov, MD; University of Nebraska Medical Center

P453 EFFECT OF BARIATRIC SURGERY ON SYSTEMIC AND ADIPOSE TISSUE INFLAMMATION
C. Blankledge, MD, V Sam, MD, N Moustaid-Moussa, PhD, N Siriwadhana, PhD, M Mancini, MD, P Barlow, BA, G Mancini, MD; The University of Tennessee Graduate School of Medicine

P454 SINGLE-INCISION SLEEVE GASTRECTOMY VERSUS LAPAROSCOPIC SLEEVE GASTRECTOMY: A CASE-CONTROL STUDY
Elie K Chouillard, MD, Nelson Trelles, MD, Guillaume Pournier, MD, Aziz Karray, MD, Ibrahim Dagher; PARIS POISSY MEDICAL CENTER

P455 ROUX-EN-Y GASTRIC BYPASS MAY BE BETTER THAN SLEEVE GASTRECTOMY IN MORBIDLY OBESE PATIENTS WITH TYPE 2 DIABETES
Elie K Chouillard, MD, Aziz Karray, MD, Haya Khalafan, MD, Khalid Al Khalifa, MD, FRCS; PARIS POISSY MEDICAL CENTER

P456 THE POST-STENT PRODROME: CONSIDERATIONS AND UTILITY OF ENDOSCOPIC STENTING IN THE MANAGEMENT OF LAPAROSCOPIC SLEEVE GASTRECTOMY LEAKS
Anirban Gupta, MD, FRCS, Azam Qureshi, MD, Jenny Choi, MD, Abraham Krikhely, MD, Sammy Ho, MD, Pratibha Vermulapalli, MD, FACS, Diego Camacho, MD, FACS; Montefiore Medical Center

P457 EFFECTIVE WEIGHT LOSS OF THE ENDOSCOPIC DUODENOJEJUNAL BYPASS LINER IN PATIENTS WITH GRADE I OBESITY
Fernando Muñoz, MD, Cesar Muñoz, MD, Fernando Pimentel, MD, Daanae Turiel, RN, Cecilia Gomez, RN, Sergio Guzman, MD, Luis Ibañez, MD, Alex Escalona, MD; Digestive surgery department, Pontificia Universidad Católica de Chile

P458 PERIPROCEDURE OUTCOME DURING UPPER ENDOSCOPY IN MORBIDLY OBESE PATIENTS: A PROSPECTIVE STUDY
Pornthep Prathanyanich, MD, Bipan Chand, MD; Loyola University Chicago Stritch School of Medicine Chicago

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Murad Rani Hanj, MD, Ashraf Haddad, MD, Nadeem Haddad, MD, Dominic Nelson, MS, Andrew Averbach, MD; St.Agnes Hospital

P460 IS BARIATRIC SURGERY A SAFE OPTION IN EXTREMELY HIGH-RISK MORBIDLY OBESE PATIENTS?
Ali Aminian, MD, FICS, Esam Batayyah, MD, Hector Romero-Talama, MD, Eric Afnhildt, DO, FACS, Andrea Zelisko, MD, Tomasz Rogula, MD, PhD, Matthew Grigaites, MD, Sayeed Ikramuddin, MD, FACS, Stacy A Brethauer, MD, FACS, Philip R Schauer, MD, FACS; Bariatric and Metabolic Institute, Cleveland Clinic, Ohio

P461 LAPAROSCOPIC SLEEVE GASTRECTOMY IN THE TREATMENT OF MORBID OBESITY
C. Kendrick, MD, J Dickerson, MD, M Harnisch, MD, J Pfluke, MD; San Antonio Military Medical Center

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Fernando Muñoz, MD, Pimentel Fernando, MD, Sharp Allan, MD, Andres Donoso, MD, Dannae Turiel, RN, Cecilia Gomez, RN, Escalona Alex, MD; Digestive Surgery Department. Pontificia Universidad Católica de Chile

P465 REVISIONAL BARIATRIC SURGERY
Veronica Gorodner, MD, Barbara Helman, MD, Rudolf Buxhoeveden, MD, Alejandro Grigaites, MD; Programa de Unidades Bariatricas de la Universidad de Chile

P466 PREVALENCE OF OBESITY AMONG SCHOOL GOING ADOLESCENT GIRLS IN Pinhania Prehan, MD, Shrutti Jain, Dietician; Dayand Medical college

P467 THE ROLE OF COLONOSCOPY IN THE WORKUP OF BARIATRIC SURGERY PATIENTS
Mohammed B Al Haddad, MD, Nidal Dehni, MD, Abdelrahman A Nimeri, MD, SKMC/ Cleveland Clinic Abu Dhabi. Bariatric

P468 THE IMPACT OF BARIATRIC SURGERY ON OBSTRUCTIVE SLEEP APNEA: A SYSTEMATIC REVIEW
Kourosh Sarkhosh, MD, Noah J Switzer, Mustafa El-Hadi, MD, Daniel Birch, MD, Xinzhao Shi, MPH, Shahrzeb Karmali, MD; Center for the Advancement of Minimally Invasive Surgery (CAMIS), University of Alberta Faculty of Medicine and Dentistry, Department of Surgery, University of Alberta

P469 COMPARISON OF SURGICAL OUTCOMES BETWEEN TOTALLY-ROBOTIC AND CONVENTIONAL LAPAROSCOPIC IN GASTRIC BYPASS SURGERY: A SYSTEMATIC REVIEW
Richie G Goriparthi, MD, MSc, Shah-Jalal Sarker, BSc, Hons, MSc, PhD, Sundus Makkayih, MBChB, MSc, Badiya S Alaraimi, MD, Walid S Elbakab, MBCh, MSc, Hitendra R Patel, PhD, FRCs, FRCS, Bijendra Patel, MS, FRCS, FRCS; Barts Cancer Institute, Queen Mary, University of London

P470 FACTORS ASSOCIATED WITH DELAYED HOSPITAL DISCHARGE AFTER SAME-DAY LAPAROSCOPIC ADJUSTABLE BANDING SURGERY: A PROSPECTIVE STUDY
Minyoung Cho, MD, PhD, Bodri Son, MD, Kyong Nam Eo, MD, Jeong Eun Kim, MD, Kyu Hee Chae, MD, Ha Jin Eo, MD, Jae Yong So, MD, Sun Ho Lee, MD, Namchul Kim, MD; 36.5 Gastric Banding Surgery Center, 365MC Obesity Clinics

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P473 INFLAMMATION IN LESS VERSUS LAPAROSCOPIC CHOLECYSTECTOMY Fernando A V Madureira, SAGES, TCBC, MsC, Phd, Jose Eduardo Ferreira Manso, TCBC, Msc, Phd, Delta Madureira, TCBC, Msc, Phd, Antonio Carlos Garrido Iglesias, TCBC, MsC, Phd; UNIRIO , UFRJ

P474 LAPAROSCOPIC MANAGEMENT OF ABDOMINAL LESIONS OF THE NEM−1 SYNDROME. EXPERIENCE GASTROINTESTINAL SERVICE IN COLOMBIA. Evelyn A Derrado, md; Unit Laparoscopic Surgery CES University

P475 LAPAROSCOPIC CHOLECYSTECTOMY IN ACUTE CHOLECYSTITIS, IT IS OFTEN POSSIBLE. Asem Ghasoup, MD, Omar Sadieh, MD, Qais Al Ani, FRCS, Amer Hashim, FRCS; Al Bashir Hospital

P476 SINGLE INCISION LAPAROSCOPIC RESECTION OF SMALL BOWEL TUMORS: A CASE SERIES Terry P Nickerson, MD, Juliane Bingener, MD, Johnathon Aho, MD; Mayo Clinic, Rochester, MN

P477 SINGLE INCISION LAPAROSCOPIC APPENDECTOMY VERSUS TRADITIONAL 2-PORT LAPAROSCOPIC APPENDECTOMY: AN ANALYSIS OF OUTCOMES AT A SINGLE INSTITUTION Sharon Monsivais, BA, Hannah Vassaur, MS, PAC, Daniel Jupiter, Phd, John Eckford, MD, Rob Watson, MD, F. Paul Buckley III, MD; Division of General Surgery, Scott and White Healthcare

P478 LAPAROSCOPIC EVALUATION IN CHRONIC POST-OPERATIVE ABDOMINAL PAIN Malinieh Khosravi, MD, Amir Veidan, MD; Imam Reza Hospital

P479 A RARE CASE PRESENTATION OF A SYMPTOMATIC OMPHALOMESENTERIC CYST IN AN ADULT, 24-YEAR OLD PATIENT, TREATED WITH LAPAROSCOPIC RESECTION. Shohtar Annaberdyev, MD, Tony Capizzani, MD, Thomas Piesec, MD; Cleveland Clinic

P480 SINGLE INCISION LAPAROSCOPIC CHOLECYSTECTOMY WITH TWO UBILICAL PORTS AND THIN FORCEPS Hidenori Fujii, MD, Yoshiyuki Kawakami, MD, Phd, Toshiharu Aotate, MD, PhD, Koji Doi, MD, PhD, Riki Ganeko, MD, Yuki Hirose, MD, Phd; Department of Surgery, Japanese Red Cross Fukui Hospital

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P482 STRATEGY AND SHORT-TERM OUTCOMES OF SINGLE INCISION LAPAROSCOPIC COLORECTAL RESECTION (SILC) IN OUR CONSECUTIVE 150 COLORECTAL CANCERS Goutaro Katsuno, MD, PhD, Masaki Fukunaga, MD, PhD, Yoshifumi Lee, MD, PhD, Kunihiko Nagakari, MD, Phd, Masahiko Sugano, MD, Phd, Masaru Suda, MD, Phd, Yoshito Iida, MD, Phd, Shuichi Sakamoto, MD, PhD, Seiichirou Yoshikawa, MD, PhD, Yoshitomo Ito, MD, PhD, Masakazu Ouchi, MD, Phd, Emi Tokuda, MD, Phd, Yoshinori Hirasaki, MD, Phd; Department of Surgery, Juntendo Urayasu Hospital, Juntendo University, Japan

P483 SINGLE PORT LAPAROSCOPIC HARVEST OF OMENTAL FLAP FOR RECONSTRUCTION OF THE GASTRODUODENAL FOSSUS Kekiichi Fujino, MD, PhD, Masatoshi Hashimoto, MD, Ryo Murabayashi, MD, Masashi Nabetani, MD, Kazuhito Mita, Hideki Asakawa, MD, Akira Kamasako, MD, PhD, Kazuya Koizumi, MD, Takashi Hayashi, MD, PhD, Hitotdo Ito, MD; Department of Surgery, New Tokyo Hospital, Japan

P484 ESTIMATION OF THE DIFFICULTY IN SINGLE-PORT LAPAROSCOPY FOR RIGHT-SIDED COLORECTAL CANCER Atsushi Hamshe, MD, Ichiro Takemasa, MD, PhD, Mamoru Uemura, MD, PhD, Naotsugi Haraguchi, MD, PhD, Junichi Nishimura, MD, PhD, Taishi Hata, MD, PhD, Tsunekazu Mizushima, MD, PhD, Hirofumi Yamamoto, MD, PhD, Yuichiro Doki, MD, PhD, Masaki Mori, MD, PhD; Osaka University, Graduate School of Medicine, Department of Gastroenterological Surgery, Osaka, Japan

P485 USE OF POLYMER CLIP IN SINGLE SITE LAPAROSCOPIC APPENDECTOMY Fernando Arias, MD, Sofia Valencia, MD, Adolfo Torres, MD, Natalia Cortes; Fundacion Santa Fe de Bogota

P486 TRANSUMBILICAL MULTI-MINI PORT CLIPLESS CHOLECYSTECTOMY WITHOUT USING TRIPORT Muhammad M Nadeem, MBBS; NSITHART MEDICAL COLLEGE AND HOSPITAL

P487 SINGLE INCISION LAPAROSCOPIC APPENDECTOMY (SILA) IN OUR HOSPITAL Okada Tomoki, Imai Yoshinori, Nakagawa Yusuke, Yamachii Tatsuo, Mitsuto Tetsuya, Yasasita Michiko, Ishida Naoki, Matsumura Masaru, Nakamura Tarou, Kiyocchi Hidenori, Okada Kenzo, Kajiwara Shinsuke; Uwajima City Hospital, Department of surgery

P488 A NOVEL MINIMALLY INVASIVE ACCESS TECHNIQUE COMBINING THE VERESS NEEDLE WITH A TRACHEOSTOMY HOOK Logan Rawlins, MD, Peter Hallowell, MD, Bruce Schirmer, MD; University of Virginia

P489 LAPAROSCOPIC MESENTERIC CYST REMOVAL IN AN ADULT FEMALE: A NOVEL APPROACH COMBINED WITH CHOLECYSTECTOMY Eric D Rideman, DO, Jonathan Nguyen, DO, Linda Szczurek, DO, Adeshola Fakuilju, MD, Eric Gullbrand, MS; UMDNJ-SOM

P490 FOREIGN BODY REMOVAL: A COMpletely LAPAROSCOPIC APPROACH FOR AA BATTERIES ADVANCING TO THE SMALL BOWEL Eric Gullbrand, MS, II; Eric D Rideman, DO, Adeshola Fakuilju, MD, Sonya Vankawala, MS, III; UMDNJ-SOM

P491 MINIMALLY INVASIVE EXCISION OF THE ROKITANSKY DIVERTICULUM. Tetsuji Nobuhisa, MD, PhD, Kyohei Kai, MD, Shizo Sato, MD; Department of Surgery, Red Cross Hospital, Himeji, Japan

P492 SURGICAL OUTCOME AND INDICATION OF SISL IN COMBINATION WITH A 2-MM DIAMETER FORCEPS FOR CHOLECYSTECTOMY Hideaki Tsutsuji, MD, Shimoaka Hospital

P493 NAVIGATIONAL BRONCHOSCOPY FOR THE EVALUATION OF PERIPHERAL PULMONARY LESIONS Rebecca J Johnson, MD, Brent L Johnson, MS, James S Stephenson, MD, William D Bolton, MD; Greenville Hospital System University Medical Center Division of Thoracic Surgery; University of Kentucky Division of Cardiothoracic Surgery

P494 MINIMIZING SURGICAL STRESS IN OPEN INTESTINAL SURGERY Francesco Rulli, MD, Mario Stefani, Sasan Amirhasanskhan; University of Rome ‘Tor Vergata’

P495 LAPAROSCOPIC MANAGEMENT OF INTUSSUSCEPTION IN AN ADULT Tejal Pandya, MD, Praneetha Narahari, MD; St.Agnes Medical Center and Dept. of Surgery, UCSF-Fresno

P496 LAPAROSCOPIC SPLENECTOMY VERSUS PARTIAL SPLENOEMBOLIZATION FOR THE MANAGEMENT OF HYPERPLASISI IN CIRRHOTIC PATIENTS Zhong Wu, PhD, Jin Zhou, PhD, Bing Peng, PhD; West China Hospital, Sichuan University

P497 RETROPERITONEOSCOPIC PANCREACTECTOMY: A TOTALLY NEW SURGICAL APPROACH FOR PANCREAS. Guodong Zhao, MD, Rong Liu, PhD, Minggen Hu, MD; Chinese People’s Liberation Army (PLA) General Hospital

P498 LAPAROENDOSCOPIC SINGLE-SITE (LESS) LIVER RESECTION: A REPORT OF 26 CASES Rong Liu, PhD, Guodong Zhao, MD, Minggen Hu, MD; Chinese People’s Liberation Army (PLA) General Hospital

P499 LAPAROSCOPIC TRANSGASTRIC REMOVAL OF SPOONS AT LEAST 7 YEARS AFTER INGESTION Adeeel A Shamim, Om Parkash, MD, Amir H Shariff, MD; The Aga Khan University

P500 ULTIMATE LESS INVASIVE LAPAROSCOPIC SURGERY BY USING NEEDLE DEVICES AND NOSE FOR RECTAL CANCER. Masaaki Ito, Atsushi Koyama, Nobuhiro Sugano, Hideaki Nishigori, Yusuke Nishizawa, Akihiro Kobayashi, Masanori Sugito, Norio Saito; Department of Colorectal and
P501 SINGLE INCISION CHOLECYSTECTOMY UTILIZING THE SPIDER SURGICAL SYSTEM: EXPERIENCE OF 225 CASES Juan-Carlos Verdeja, MD, Julio C Lopez, Jr; Florida International University Herbert Wertheim College of Medicine, Baptist Health Medical Group

P502 EVALUATION FOR LESS INVASIVENESS IN SINGLE PORT LAPAROSCOPIC SURGERY FOR COLORECTAL CANCER Masayuki Hiraki, MD, Ichiro Takemasa, MD, PhD, Mamoru Uemura, MD, PhD, Naotsugu Haraguchi, MD, PhD, Junichi Nishimura, MD, PhD, Taishi Hata, MD, PhD, Tsunekazu Mizushima, MD, PhD, Hirohumi Yamamoto, MD, PhD, Yuichiro Doki, MD, PhD, Masaki Mori, MD, PhD; Osaka University, Graduate School of Medicine, Department of Gastroenterological Surgery

P503 FEASIBILITY OF TRANSMURAL ULTRASOUND WEDGE RESECTION IN A CANINE MODEL Yun-Hen Liu, MD, Hui-Ping Liu, MD; Chang Gung Memorial Hospital, Chang Gung University, Taoyuan, Taiwan

P504 SHORT TERM RESULTS OF DOUBLE INCISION LAPAROSCOPIC RIGHT COLECYSTECTOMY Yoshihito Imai, Shinsuke Kajiwara, Hidenori Kiyohori, Kenzo Okada, Toshiko Shikao, Taro Nakanuma, Naoki Ishida, Tetsuya Mizumoto, Masaru Matsumura, Michiko Yamashita, Tatsuo Yamauchi, Tomoaki Okada, Yusuke Nakagawa, Yoshitomo Ueno; Uwajima City Hospital

P505 A RANDOMISED CONTROLLED TRIAL TO ESTABLISH THE EFFECT OF ARTICULATING INSTRUMENTS UPON PERFORMANCE AND LEARNING CURVE IN SINGLE INCISION LAPAROSCOPIC SURGERY Harry P Corker, BSc, Pritam Singh, MBBS, MA, MRCS, Mikael H Sodergren, MRCS, PhD, Sathyan Balaji, BSc, Richard M Kwasniaski, BSc, Ara W Darzi, FRCS, KBE, Paraskevas A Paraskeva, PhD, FRCS, Imperial College London

P506 STARTING A LAPAROSCOPIC SURGERY PROGRAM IN THE 2Nd LARGEST TEACHING HOSPITAL IN GHANA Adam Gyedu, MD, FCGCS, Juliane Bingener-Casey, MD, FACS, Eric P Amankwah, MD, FACS, FPACS, FGCS, MD, K Dally, MD, FICS, Joseph Oppong, MBChB, FWACS, Raymond R Price, MD, FACS, Kaye M Reid-Lombardo, MS, MD, FACS, Francis A Abantaeng, MD, PhD, FWACS, FGCS; Kwame Nkrumah University of Science and Technology, Ghana; Komfo Anokye Teaching Hospital, Ghana; Mayo Clinic, USA; University of Utah, USA

P507 SURGICAL TREATMENT OUTCOMES OF TRANSUMINAL SINGLE PORT ACCESS LAPAROSCOPIC APPENDECTOMY BY USING MINI-LAPAROSCOPIC INSTRUMENTS FOR COMPLICATED ACUTE GANGLEROUS APPENDICITIS Yoshiyuki Kawakami, PhD, Hidenori Fuji, PhD, Riki Ganeko, MD, Kei Hirose, MD, Makoto Yoshida, PhD, Koji Oei, PhD, Tashiharu Long, MD, Yuko Kawamura, MD, Fumie Tanaka, MD, Yuki Hirose, PhD; Department of Surgery, Japanese Red Cross Fukui Hospital, Fukui, Japan

P508 LAPAROSCOPIC CHOLECYSTECTOMY IN SITUS INVERSUS: A CASE PRESENTATION Sisirkumar Nath, MS; INTERNATIONAL HOSPITAL,GUWAHATI, INDIA-781005

P509 NOVEL ESOPHAGEAL DRAINAGE Jonathan Kiew, MD; Marshall University

P510 LAPAROSCOPIC ASSISTED PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (LAPEG): A SIMPLE AND SAFE TECHNIQUE OF GASTROSTOMY TUBE PLACEMENT IN PATIENTS WITH FAILED PEG BY SURGEONS WITH BASIC LAPAROSCOPY SKILLS. Alok K Gupta, MD, Alif M Manejwala, MD; Baltimore Washington Medical Center, UUMS, Glen Burnie, MD

P511 LAPAROSCOPIC REDUCTION OF ILEOLEAL INTUSSUSCEPTION ASSOCIATED WITH HENOCCH SCHOLLEIN’S PURPURA: A CASE REPORT Rashmi Bawa, MD, Paise Matemavi, MD, Charles Voren, MD; NewYork Hospital Queens, Flushing, NY

P512 ELEVEN CASES OF LAPAROSCOPIC TREATMENT FOR RECTOSIGMOID ENDOMETRIOSIS Yutaka Kojima, MD, Kazuhiro Sakamoto, MD, Yuichi Tomiki, MD, Michitoshi Goto, MD, Makoto Takahashi, MD, Yukihiro Yaginuma, MD, Masaki Hata, MD, Shun Ishiyama, MD, Kiichi Sugimoto, MD, Kazuhiro Takehara, Jun Aoki, MD, Yu Okazawa, MD; Juntendo University Faculty of Medicine, Tokyo, Japan

P513 STUDY OF SINGLE PORT LAPAROSCOPIC APPENDECTOMY Kazuhiro Takehara, MD, Jun Aoki, MD, Yuu Okazawa, MD, Rina Takahashi, MD, Kosuke Mizukoshi, MD, Masaya Kawai, MD, Yoshikiko Tashiro, MD, Shin’ya Munakata, MD, Shyun Ishiyama, MD, Kiichi Sugimoto, MD, Makoto Takahashi, MD, Yukihiro Yaginuma, MD, Yutaka Kojima, MD, Michitoshi Goto, MD, Atsushi Okawazka, MD, Yuichi Tomiki, MD, Kazuhiro Sakamoto, MD; Department of colorectal surgical surgery, Juntendo University Faculty of Medicine, Tokyo, Japan

P514 SINGLE-INCISION LAPAROSCOPIC SURGERY FOR SMALL BOWEL DISEASES Kenji Baba, MD, Shichiro Mori, MD, Shigeiho Yanagita, Kosei Maemura, Hiroshi Okumura, Tetsuhiro Nakojo, MD, Shoji Natsugoe, MD; Department of Digestive Surgery, Breast and Thyroid Surgery Graduate School of Medical and Dental Science, Japan

P515 COMPARISON OF SINGLE-INCISION LAPAROSCOPIC CHOLECYSTECTOMY WITH STANDART LAPAROSCOPIC APPROACH M.umin Ugurlu, MD, M. tahir Oruc, MD; Marmara University School of Medicine Dept. of General Surgery,istanbul, TURKEY; Antalya Teaching and Research Hospital, Department of General Surgery, Antalya, TURKEY

P516 OMENTAL INFARCTION: LAPAROSCOPIC TREATMENT OF A RARE CAUSE OF THE ACUTE ABDOMEN Lauten J Fischer, MD; Riverview Medical Center, Red Bank, NJ

P517 EVALUATION OF THE USE OF SINGLE INCISION LAPAROSCOPIC SURGERY (SILS) IN BARIATRIC SURGERY Fawaz C. torab, MD, PhD, Mohd Yasser Alkayyal, MD, FRCSI, FACS, Haytham Elsalhat, MD, Franck Branicki, MD, FRCS, Tawam Hospital/FMHS UAE university

P518 A SINGLE SURGEON’S EXPERIENCE WITH LAPAROSCOPIC ADRENALECTOMY Ji-Young Sul, MD, PhD, Jun-Beom Park, MD, Byoung-Soon Park, MD; Department of Surgery, Chungnam National University School of Medicine, Daejeon, Korea

P519 EVALUATION OF 3-D LAPAROSCOPY TO COMPLETE SURGICAL SKILLS TASKS Marc Singer, MD, Jill Endres, MD, Amy Yetasook, BA, Wissam Halabi, MD, Igor Voskresensky, MD, Michael J Stamos, MD, Ronald Clemens, MD, Northshore University HealthSystem, University of California - Irvine, Vanderbilt University

P520 SINGLE PORT ACCESS TOTAL GASTRECTOMY FOR GASTRIC CANCER Shuji Kitashiro, PhD, Shunniichi Okushib, PhD, Tetsuyuki Oookubo, PhD, Yo Kawarada, PhD, Masaya Kawada, PhD, Yoshinori Suzuki, PhD, Kazuyuki Yamamoto, Kurumi Iwaki, Hiroyuki Katoh, PhD; Tnan Hospital

P521 GASLESS TRANSAXILLARY ENDOSCOPIC THYROIDECTOMY: A DECade on Sang Wook Kang, MD, So Hee Lee, MD, Woong Youn Chung, MD, Ph, D, Kee-Hyun Nam, MD, Ph, D; Department of Surgery, Yonsei University College of Medicine

P522 GASLESS TRANSPERITONEAL TUMOURS-LAPAROSCOPIC TREATMENT Lukas Sakra, MD, PhD, Maria Hacova, MD, Jiri Siller, MD, PhD; Surgical Dept. Pardubice, Czech Republic

P523 REDUCED-PORT LAPAROSCOPIC TOTAL GASTRECTOMY FOR GASTRIC CANCER USING ACESS TRANSFORMER OCTOMET H Ono, MD, T Oshima, MD, T Fukuho, MD, T Kosaka, MD, H Makino, MD, H Akiyama, MD, T Nakajima, MD, K Takehara, Jun Aoki, MD, Yu Okawazka, MD; Juntendo University Faculty of Medicine, Tokyo, Japan
Poster Listing

Syuichi Iwashashi, Shinichiro Yamasa, Masahito Asanoma, Daichi Ishikawa; Department of Surgery, The University of Tokushima

P526 COLLABORATING LAPAROSCOPIC AND ENDOSCOPIC METHOD FOR THE RESECTION OF GASTRIC SUBMUCOSAL TUMORS: OUR EXPERIENCE Shuji Kitashiro, Kazuyuki Yamamoto, Kurumi Iwaki, Takeboku Onoda, Masaya Kawada, Yoshinori Suzuki, Yo Kawarada, Tetuyuki Okubo, Shinichii Okushiba, Hiroyuki Katoh, Tetsuya Suniyoshi, Hitoshi Kondo, Aya Mori; KKR Tonan Hospital Sapporo Japan

P527 LAPAROSCOPIC CHOLECYSTECTOMY WITH 1 PORT. C1IP. 14 YEARS EXPERIENCE. Fausto Davila, MD, Gloria Gonzalez, MD, Daniel Tsin, MD, Guillermo Dominguez, MD, Martha Davila, MD, Jose Lemus, MD, Andrea Tinelli, MD, Jose Montero, MD, Sergio Aguilar, MD, Victor Heredia, MD, Ulises Davila, MD, Qaiqish Shadie, MD; Reg. Hosp. SESVER, Poza Rica, Veracruz, Mexico. Hosp. ISSSTECAI, Tijuana, B.C., Mexico. Mount Sinai Hospital Queens, N.Y., USA Fundacion Hospitalaria (Hospital Foundation) Buenos Aires, Argentina. Hosp. Gral. Dr. M. GEA Gonzalez, DF, Mexico. Reg. H

P528 THE PREDICTORS OF THE SUCCESS OR FAILURE OF LAPAROSCOPIC SURGERY FOR THE MANAGEMENT OF SMALL BOWEL OBSTRUCTION. Sang Hyun Kim, MD, Yong Ho Kim, MD, Sun Jin Park, MD, Sung Il Choi, MD; Department of Surgery, School of Medicine, Kyung Hee University

P529 IS POST OPERATIVE CONTRAST SWALLOW NECESSARY FOLLOWING LAPAROSCOPIC CARDIOMYOTOMY FOR ACHALASIA? W R Carr, Mr, Y K Viswanath, Mr, Penny Wilson, Dr, Ananthad Madhavan, Mr; James cook university hospital

P530 NATURAL ORIFICE TOTAL MESORECTAL EXCISION USING TRANSANAL PORT COMBINED WITH SINGLE-PORT LAPAROSCOPY THROUGH STOMA SITE: LESSONS FROM A CADAVERIC STUDY Ji Won Park, MD, Young Suk Kim, MD, Dae Kyung Sohn, PhD, MD, Sung Chan Park, MD, Samin Hong, MD, Hyung Jin Kim, MD, Seong Taek Oh, PhD, MD, Jae Hwan Oh, PhD, MD; National Cancer Center, Goyang, Republic of Korea

P531 GASTRIC FISTHEBOZAOAR RESOLVED BY SLS Adrian M Maghia, MD, PhD, George E Dejeu, MD, Alin Suta, MD, Spitalul Pelican Oradea, Romania

P532 LAPAROSCOPIC APPENDECTOMY - OUR EXPERIENCE Adrian M Maghia, MD, PhD, Dan H Ciurtin, MD, PhD, Marius Sbirlea, MD, George E Dejeu, MD, Pravish R Sookha, MD, PhD, Codruta Macovei, MD, Teodor Maghia, MD, PhD; Spitalul Pelican Oradea, Romania

P533 A CLINICAL COMPARISON OF LAPAROSCOPIC DISTAL GASTRECTOMY TO OPEN DISTAL PANCREATECTOMY Yiping Mou, MD, FACS, Kun Xie, MD, Jiafei Yan, MD, Weiwei Jin, Xiaowu Xu, MD, Yucheng Zhou; Department of General Surgery, Sir Run Run Shaw Hospital, Zhejiang University, Hangzhou, China

P534 THE CLINICAL COMPARISON OF TOTAL LAPAROSCOPIC TOTAL GASTRECTOMY WITH OPEN TOTAL GASTRECTOMY FOR GASTRIC CANCER Xiaowu Xu, MD, Ke Chen, MD, Weiwei Jin, Jiafei Yan, MD, Yucheng Zhou, MD, Yiping Mou, MD, FACS; Department of General Surgery, Sir Run Run Shaw Hospital, Zhejiang University, Hangzhou, China

P535 CLINICAL OUTCOMES OF SINGLE INCISION LAPAROSCOPIC CHOLECYSTECTOMY USING STANDARD LAPAROSCOPIC INSTRUMENTATION. Erin Moran-Atkin, MD, Nathan Richards, MD, Richard Andrus, PhD, Fred Brody, MD, MBA; Department of Surgery, The George Washington University Medical Center, Washington DC

P536 A COMPARATIVE STUDY OF THE QUALITY OF LIFE FOLLOWING TOTALLY LAPAROSCOPIC DISTAL GASTRECTOMY WITH OPEN DISTAL GASTRECTOMY FOR GASTRIC CANCER Yiping Mou, MD, FACS, Weiwei Jin, Xiaowu Xu, MD, Jiafei Yan, MD, Yucheng Zhou, MD, Ke Chen, MD; Department of General Surgery, Sir Run Run Shaw Hospital, Zhejiang University, Hangzhou, China

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P540 LAPAROSCOPIC OMENTAL PATCH REPAIR OF PEPTIC ULCER PERFORATION Muhammad Shahzad, DO; Holy Family Hospital, Rawalpindi, Pakistan

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P543 GALLBLADDER DISSECTION IN LAP CHOLECYSTECTOMY USING L-HOOK VERSUS HARMONIC SCALPEL Syed Jawad Shah, doctor; Holy Family Hospital, Rawalpindi, pakistan

P544 LAPAROSCOPIC HERNIOPLASTY (TEPP) VERSUS OPEN HERNIOPLASTY: COMPARISON OF POSTOPERATIVE PAIN AND MOBILIZATION Syed Jawad Shah, doctor; Holy Family Hospital, Rawalpindi, Pakistan

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P548 : LAPAROSCOPIC MANAGEMENT OF PRIMARY OMENTAL INFARCTION - 2 CASE REPORTS A C Stanescul*, MD, M. Nedelcu**, MD, A. Andreica ***, MD, Gilbert Weill ***, MD; Hotel Saint Jean de Maurienne, France; ** Institute Mutualiste Montlouis, Paris, France; *** Hopital Necker, Paris, France

P549 SINGLE PORT LAPAROSCOPIC SURGERY FOR ACUTE APPENDICITIS Hidetoshi Kiyonaga, MD, Keiji Hirata, MD, Ryuichi Mibu, MD; Fukuoka Sanno hospital Dept. of surgery

P550 SINGLE-INSTITUTION EXPERIENCE WITH LAPAROSCOPIC MEDIAN ARCULATE LIGAMENT RELEASE Konstantinos Spaniolas, MD, Michael B Hill, MD, Thadeus L Freitas, MD; DARTMOUTH-HITCHCOCK MEDICAL CENTER

P551 LONG-TERM OUTCOMES FROM LAPAROSCOPY-ASSISTED GASTRECTOMY FOR GASTRIC CANCER: A SINGLE-CENTER EXPERIENCE OF 209 SERIES. Lu Zhang, MDPhD, Wei-guo Hu, MD, Jun-jun Ma, PhD, Bo Feng, PhD, Min-hua Zheng, MD; Department of Surgery, Ruijin Hospital, Shanghai Jiaotong University School of Medicine, Shanghai minimally invasive surgery center, 200025, Shanghai, P. R. China.

P552 ACUTE PANCREATITIS SECONDARY TO AN INCARCERATED DIAPHRAGMATIC HERNA REPAIRED LAPAROSCOPICALLY WITH MESH Ricardo Mohammed, DO, Richard Y Greco, DO, Jennifer To, DO, Robert Madlinger, DO, FACOS, Erwin Doyoun, MD; ST. Joseph's Regional Medical Center

P553 COMPARISON OF OUTCOMES IN PATIENT UNDERGOING LAPAROSCOPIC COLECTOMY AT TEACHING VERSUS NONTEACHING INSTITUTIONS Justin Tawfik, Steve Eubanks, Pablo Arnoletti, Sebastian de la Fuente; Florida Hospital

P554 STAGED LAPAROSCOPIC ADJUVANT INTRAPERITONEAL CHEMOTHERAPY (IPCH) AFTER COMPLETE RESECTION FOR LOCALLY ADVANCED COLORECTAL OR GASTRIC CANCER 5-YEAR FOLLOW-UP
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P555 SUBCUTANEOUS SURGERY IN CHILDREN. Bethany Slater, MD, Ashwin Pimpalwar, MD, FRCS, Pediatric surgery; Division of Pediatric Surgery, Michael E DeBakey Department of Surgery, Baylor college of medicine and Texas Children's Hospital, Houston, Texas.

P556 EVALUATION OF SURGICAL STRESS RESPONSE AFTER LAPAROSCOPIC CHOLECYSTECTOMY IN ELDERLY PATIENTS Luciana Falibo, MD, Fernando Madureira. SAGES, Msc, Phd, Antonio Carlos Garrido, TCBC, MsC, Phd; UNIRIO

P557 SUPERIOR MESENTERIC VEN THROMBOSIS FOLLOWING LAPAROSCOPIC BARIATRIC SURGERY: A SINGLE-CENTER EXPERIENCE Christa L Jillard, MD, M McLawhorn, Rana C Pullatt, MD, T K Byrne, MD; Medical University of South Carolina

P558 A NEW RETRACTION TECHNIQUE IMPROVES THE SAFETY OF SINGLE INCISION LAPAROSCOPIC CHOLECYSTECTOMY Kee-Hwan Kim, MD, PhD, Chang-Hyeok An, MD, PhD, Jeong-Soo Kim, MD, PhD, Il-Young Park, MD, PhD, Dong-Gu Kim, MD, PhD, Sang-Kwon Lee, MD, PhD; Department of Surgery, Uijeongbu St. Mary’s Hospital, College of Medicine, The Catholic University of Korea, Uijeongbu, Korea

P559 LAPAROSCOPIC ADRENALECTOMY FOR BENIGN ADRENAL MASSES: AN ANALYSIS OF PATIENTS FROM THE NIS DATABASE Muhammad Asad Khan, MD, John N. Afthinos, MD, FACS, Karen E. Gibbs, MD, FACS; Staten Island University Hospital

P560 SINGLE-INCISION LAPAROSCOPIC CHOLECYSTECTOMY: SAFE, FAST, AND EASY TO LEARN Justin Taylor, Brandon Foles, Rhonda Harmon, Jean Minner, Florida Hospital

P561 THE ADRENAL PSSOS SIGN: A SIMPLE TECHNIQUE TO MAXIMIZE COMPLETE REMOVAL OF EXTRACORtical ADRENAL TISSUE DURING LAPAROSCOPIC ADRENALECTOMY Erin W Gilbert, MD, Vincent L Harrison, MD, Brett C Sheppard, MD; Oregon Health

P562 LAPAROSCOPIC TREATMENT OF GENERALIZED PERITONITIS CAUSED BY PERFORATED APPENDIXIS. Juan D Hernandez, MD, Anwar Medellin, MD, Maria I Rizo, MD, Fernando Arias, MD, Roosevelt Fajardo, MD, Eduardo, MD, Londono, MD, FACS, Ricardo Nassar, MD, Felipe Perdomo, MD, Roberto Rueda, Angela Ospina, Manuel Cadena, MD, PhD; Hospital Universitario Fundacion Santa Fe de Bogota and Universidad de los Andes

P563 SAGES RESEARCH AGENDA IN GASTROINTESTINAL AND ENDOSCOPIC SURGERY: RESULTS OF A DELPHI STUDY Dimitrios Stefanidis, MD, PhD, David Urbach, MD, Paul Montero, MD, Alia Qureshi, MD, Sharon Bachman, MD, Atul Madan, MD, Kevin Reavis, MD, Rebecca Petersen, MD, Aurora Pryor, MD; multiple institutions, SAGES Research Committee

P564 LAPAROSCOPIC MANAGEMENT OF URACHAL CYST: A REVIEW OF 5 CASES AND COMPARISON WITH OPEN APPROACH Wayne S.W. Huang, MD, Dev-Aur Chou, MD, Hurlng-Sheng Wu, MD; Department of General Surgery, Show Chwan Memorial Hospital,Changhua, Taiwan

P565 HOW DO SAGES MEMBERS RATE ITS GUIDELINES? Dimitrios Stefanidis, MD, PhD, William Hope, MD, Bill Richardson, MD, Robert Fanelli, MD; multiple institutions, SAGES Guidelines Committee

P566 SINGLE-INCISION VERSUS CONVENTIONAL LAPAROSCOPIC CHOLECYSTECTOMY Tadafumi Asakura, MD, PhD, Atsushi Miyamoto, MD, PhD, Kazuyoshi Yamamoto, MD, PhD, Kazumasa Ikenaga, MD, PhD, Michihiko Miyazaki, MD, Hideyasu Omiya, MD, PhD, Motohiro Hiroa, MD, PhD, Masatake Ikeda, MD, PhD, Koji Takami, MD, PhD, Kazumasa Fujitani, MD, PhD, Shoji Nakamori, MD, PhD, Mitsugu Sekimoto, MD, PhD; Osaka international hospital

P567 VIDEO-ASSISTED THORACOSCOPIC SURGERY IN THE TREATMENT OF PATIENTS WITH BULLOUS EMPHYSEMA Atul Mishra, MBBS, MS, FRCS, Ashvind Bawa, MBBS, MS, FMAS, Amandeepr Singh Nar, MBBS, MS, FMAS, Dayanand Medical College and Hospital, Ludhiana

P568 VIDEO ASSISTED THORACOSCOPIC TALCPLEURODISSECTION: A SINGLE CENTER EXPERIENCE USING COST SAVING MEASURES Amandeepr Singh Nar, MBBS, MS, FMAS, Ashvind Bawa, MBBS, MS, FMAS, Atul Mishra, MBBS, MS, FRCS; Dayanand Medical College and Hospital, Ludhiana

P571 USE OF LAPAROSCOPIC APPROACH FOR REMOVAL OF LARGE GASTRIC TRICHOBEZOAR IN CHILDREN. Ashwin Pimpalwar, MD, FRCS, Pediatric surgery; Division of Pediatric Surgery, Michael E DeBakey Department of Surgery, Baylor college of medicine and Texas children’s hospital, Houston, Texas

P572 THE ROLE OF LAPAROSCOPY IN THE MANAGEMENT OF 448 EMERGENT INTESTINAL OBSTRUCTION Song Liang, MD, PhD, Morris E Franklin Jr, MD, FACS, Jeffrey L Glass, MD, FACS; Texas Endosurgery Institute

P573 COMPARISON OF IMAGING-ASSISTED LAPAROSCOPIC ADRENALECTOMY AND CONVENTIONAL LAPAROSCOPIC ADRENALECTOMY Chi Hsiang Wu, MD, Hurlng-Sheng Wu, MD, Eugene Lin, MD; Changbin Show Chwan Memorial Hospital

P574 USE OF NATURAL ORIFICE FOR SPECIMEN EXTRACTION IN LAPAROSCOPIC SOLID ORGAN SURGERY Subhas Misra, MD, MS, Brenton Popiel, BS, Cathia Santos, BA, Sybilann Williams, MD, Christopher Stephenson, DO; Cancer Treatment Centers of America

P575 TRANSVAGINAL LAPAROSCOPIC SIGMOIDECTOMY FOR SIGMOID COLON CANCER: REPORT OF A CASE FROM CHINA Duo Li, MD, Chunbo Kang, MD, Jinhong Liu, MD, Ainmin Li, MD, Xiufeng Chen, MD; Department of Minimally Invasive Gastrointestinal Surgery, Aerospace Central Hospital, Peking University, Beijing, China

P576 TOTALLY INTRACORPOREAL RIGHT COLORECTAL BY HYBRID NOTES PROCEDURE UNDER TRANSVAGINAL LAPAROSCOPY Hiroshi Hirukawa, MD, D Satou, MD, K Kawagou, MD, K Hachisuka, MD, R Tanaka, MD, T Tada, MD; Tachikawa General Hospital

P577 EXPERIENCE WITH TRANSVAGINAL GALLBLADDER REMOVAL IN LAPAROSCOPIC CHOLECYSTECTOMY Kazuyuki Saito, MD, Nobumichi Tagaya, PhD, Nana Makino, MD, Yawara Kubota, MD, Takashi Okuyama, PhD, Yoshitake Sugamata, PhD, Hidemaro Yoshida, PhD, Masatoshi Oya, PhD; Department of Surgery, Dokkyo Medical University Koshigaya Hospital

P578 QUALITY OF LIFE, SEXUALITY AND REPRODUCTIVE HEALTH IN WOMEN AFTER HYBRID TRANSVAGINAL NOTES Angel Cuadrado-garcia, MD, PhD, Anna Sanchez Lopez, MD, Jose Francisco Noguera, PhD, Jose Maria Muñoz, MD, Rafael Morales Soriano, MD, Santiago Baena Bradaschia, MD, Jose Manuel Olea Martinez, MD, Antonia Crespi Mir, MD; Hospital Son Llatzer, IUNICS (Palma, Spain). Hospital General (Valencia, Spain)

P579 WATER-JET ASSISTED ESOPHAGO-GASTRIC SUBMUCOSAL DISSECTION: A FEASIBILITY STUDY AND EXPLORATION OF PRESSURE EFFECT SETTINGS Thomas P Cundy, Kumuthan Srisankarajah, Kunal Shetty, Tou Fin

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Ps98 ERGONOMICALLY OPTIMAL GASTROTOMY SITE FOR TRANSGASTRIC NOTES CHOLECYSTECTOMY
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Ps81 DOES STOMAPHYX TREAT WEIGHT GAIN AND COMORBIDITY RECURRENCE FOLLOWING RYGB
B Sung, MD, N Leva, BS, S Ahmed, BS, N Lodka, BS, John M Morton, MD, MPH; Stanford University

Ps82 WOMEN’S ATTITUDES ON TRANSVAGINAL SURGERY
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Ps84 THE LEARNING CURVE OF TRANSVAGINAL NOTES CHOLECYSTECTOMY
Stephanie G Wood, MD, Daniel Solomon, MD, Robert L Bell, MD, Andrew J Duffy, MD, Kurt E Robertssons, MD, PhD; Karolinska University Hospital, Stockholm, Sweden

Ps85 TIME SERIES ANALYSIS FOR TRANSVAGINAL NOTES AND LAPAROSCOPIC CHOLECYSTECTOMY
Arun Nemani, Ganesh Sankaranarayanan, PhD, Kurt E Roberts, MD, Steven D Schwartzbach, MD, Daniel B Jones, MD, Suvarna De, PhD; Rensselaer Polytechnic Institute, Cambridge Health Alliance, Yale New Haven Hospital, Beth Israel Deaconess Medical Center

Ps86 EARLY EXPERIENCE WITH FERORAL ENDOSCOPIC MYOTOMY (POEM) IN AN ELDERLY COHORT
Matthew Zapf, BA, Amy Yetasooak, BA, JoAnn Carbray, RN, Michael Ujiki, MD; NorthShore University HealthSystem, University of Chicago Pritzker School of Medicine

Ps87 INITIAL EXPERIENCE WITH PER ORAL ENDOSCOPIC MYOTOMY (POEM) FOR TREATMENT OF ACHALASIA
Kevin D Helling, MD, Shushmita Ahmed, MD, Candidate, Eric Leroux, MD, Candidate, Brian Sung, MD, Homero Rivas, MD, MBA, FACS, FASMBS; Stanford University Medical Center, Palo Alto, California

Ps88 ENDOSCOPIC SUBMUCOSAL DISSECTION FOR LARGE NONPEDUNCULATED LESIONS OF THE COLON: EARLY EXPERIENCE IN THE UNITED STATES
Emre Gorgun, MD, Feza H Remzi, MD; Department of Colorectal Surgery, Digestive Disease Institute, Cleveland Clinic, Ohio

Ps89 ROUX LIMB TO GASTRIC REMNANT FISTULA: AN UNREPORTED COMPLICATION OF ROUX-EN-Y GASTRIC BYPASS SURGERY
Farah Karipineni, MD, MPh, Ian Soriano, MD; Albert Einstein Medical Center, Philadelphia, PA

Ps90 SURGICAL SAFETY IN GASTRIC BYPASS: OUTCOMES FROM 366 PATIENTS IN AN INTERNATIONAL BARIATRIC SURGERY CENTER OF EXCELLENCE IN MEXICO CITY
David Valadez-Caballero, MD, Hugo Sanchez, MD, Miguel F Herrera-Hernandez, MD, PhD, FACS; ABC MEDICAL CENTER MEXICO CITY

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Ps92 ASYMPTOMATIC ISOLATED RIGHT SIDED PNEUMOTHORAX AFTER SCREENING COLONOSCOPY
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Keisha P Bonner, Alexius Ramcharan, MD, HARLEM HOSPITAL CENTER

Ps93 INTERNATIONAL SURVEY OF SURGEONS JUDGE THE LAP-BAND AS A “POOR” OPERATION
R Rutledge, MD; The Centers for Laparoscopic Obesity Surgery

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Jasneet S Bhullar, MD, MS, Sushant Chaudhary, MD, MS, Jennifer Gayagoy, MD, Jacob Adams, BS, Jenna Watson, BS, Peter Lopez, MD, Vijay K Mittal, MD, FACS; Department of Surgery, Providence Hospital

Ps95 DELAYED PRESENTATION OF A BOWEL BOVIE INJURY AFTER LAPAROSCOPIC VENTRAL HERNIA REPAIR
Jasneet S Bhullar, MD, MS, Jennifer Gayagoy, MD, Sushant Chaudhary, MD, MS, Ramachandra B Kolachalam, MD; Department of Surgery, Providence Hospital and Medical Centers, Southfield, MI, USA

Ps96 IS THERE A PRESENCE OF A “JULY EFFECT” FOR MINIMALLY INVASIVE SURGERY Fellows FOR SOLID ORGAN SURGERY?
Joel F Bradley, MD, Kristopher B Williams, MD, Amanda I Walters, MS, B A Wormer, MD, K T Dacey, MHA, R F Sing, DO, K W Kercher, MD, B T Heniford, MD; Carolinas Medical Center

Ps97 COMPLICATED ACUTE APPENDICITIS (PERITONITIS), LAPAROSCOPIC MANAGEMENT COMPARISON OF TWO TECHNIQUES
Gustavo Adolfo Aguirre Bermudez, MD, Andres Ricardo Fallo, MD, William Malmberg, MD, FACS; CENTRAL MILITARY HOSPITAL BOCOTA COLOMBIA

Ps98 OUTCOMES OF LAPAROSCOPIC SURGERY FOR ESOPHAGEAL ACHALASIA IN 374 PATIENTS
F Yano, MD, PhD, FACS; N Omura, MD, PhD, K Tsuboi, MD, PhD, M Hoshino, MD, S R Yamamoto, MD, S Akimoto, MD, N Mitsumori, MD, PhD, Y Ishibashi, MD, PhD, K Nakada, MD, PhD, K Kashiwagi, K Yanga, MD, PhD, FACS; Department of Surgery, The Jikei University School of Medicine, Tokyo, Japan

Ps99 A CASE OF THE BILIARY DUCT INJURY IN LAPAROSCOPIC CHOLECYSTECTOMY: CLASSICAL BUT STILL NEEDED REMEDY
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P600 MAPPING OF INTRAABDOMINAL ADHESIONS BY ULTRASOUND FOR PREVENTING INJURIES BY THE FIRST TROCAR INSERTION
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P601 COGNITIVE BIAS AND DECISION MAKING IN BARIATRIC SURGERY: SURGEONS PREFERENCE FOR SLEEVE OR BAND DEPRESSES PERFORMANCE ON QUESTIONS RELATED TO ESOPHAGEAL DISSECTION
K T Dacey, MD; Center for Laparoscopic Obesity Surgery

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Bin Zheng, MD, PhD, Lee I Swanstrom, MD, Terry Phang, MD, O. M. Neely Panton, MD; University of Alberta

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P604 LONG-TERM FOLLOW-UP SHOWS NO DIFFERENCE IN PORT-SITE HERNIA INCIDENCE: SINGLE INCISION VS. TRADITIONAL LAPAROSCOPIC CHOLECYSTECTOMY
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P606 A 20-YEAR EXPERIENCE OF ADRENOCORTICAL CARCINOMA IN SINGLE INSTITUTION Jung Woo Kim, MD, Seulkee Park, MD, Cho Rok Lee, MD, Sohee Lee, MD, Sang-Wook Kang, MD, Jong Ju Jeong, MD, Woong Youn Chung, MD, Haeyoung Son, MD; Yonsei University Health System

P607B IMPACTS OF PERIOPERATIVE FACTORS ON MORBIDITY AND MORTALITY AFTER LAPAROSCOPIC SURGERY. Takanori Morikawa, MD, Takeshi Naitoh, MD, FACS, Masayuki Kako, MD, Naoki Tanaka, MD, Shinobu Ohnuma, MD, Hiroaki Sasaki, MD, Katsuyoshi Kudo, MD, Takako Okada, MD, Hiroki Hayashi, MD, Hiroshi Yoshida, MD, Yuyuhiko Motomi, MD, Yui Matsumoto, MD, Anai Hamasaki, MD, Leopoldo Baccaro, MD, Chiaki Shibata, MD, Shinichi Egawa, MD, FACS, Michiaki Unno, MD; Department of Surgery, Tohoku University Hospital

P610A SHORT-TERM OUTCOME OF LAPAROSCOPIC ASSESST Dистal GASTRECTOMY FOR EARLY GASTRIC CARCINOMA IN OBSE and NONOBSE PATIENTS Katsunobu Sakurai, PhD, Kazuya Muguruma, PhD, Hiroaki Tanaka, PhD, Tomohiro Lee, PhD, Hisashi Nagahara, Kenjiro Kinura, PhD, Takahiro Toyokawa, PhD, Eiji Noda, PhD, Ryosuke Amano, PhD, Naoki Kubo, PhD, Masakazu Yashiro, PhD, Kiyoshi Maeda, Masachi Ohira, PhD, Kosei Hirakawa, PhD; Department of surgical oncology, Osaka City University Graduate School of Medicine

P611A EXPANSION OF GIANT INTESTINAL LIPOMA 5 DAYS AFTER LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS Jakub Wilhelm, MD, Anai Hamasaki, MD, Leopoldo Baccaro, MD, Stanley Ogu, MD, Artun Aksade, MD, FACS; Easton Hospital, Drexel University College of Medicine

P612A SAFETY AND FEASIBILITY OF LAPAROSCOPIC ABDOMINAL SURGERY ON PATIENTS WITH MECHANICAL CIRCULATORY ASSIST DEVICES Awas Ashraf, MD, Alyssa Chapital, MD, PhD, Daniel J Johnson, MD, Linda Staley, MSN, NP, Francisco A Arabia, MD, MBA, Kristi Harold, MD, Mayo Clinic Hospital, Arizona, US

P613A A SYSTEMATIC REVIEW OF ENHANCED RECOVERY AFTER SURGERY PATHWAYS: HOW ARE WE MEASURING “RECOVERY?” Amy Neville, MD, Lawrence Lee, MD, Nancy E Mayo, PhD, Melina C Vassiliou, MD, Gerald M Fried, MD, Liane S Feldman, MD; Steinberg-Bernstein Centre for Minimally Invasive Surgery, McGill University Health Centre, Montreal QC

P614A CONSERVATIVE MANAGEMENT OF INFECTION IN A POLYPROPYLENE MESH USED IN HIAOOTPLASTY FOR THE TREATMENT OF GASTROESOPHAGEAL REFLUX DISEASE Eduardo N Trindade, MD, Manoel R Trindade, PhD, MD, Elenisa F Zanella; Department of Surgery, Universidade Federal do Rio Grande do Sul (UFRGS) and Division of Digestive Surgery, Hospital de Clínicas de Porto Alegre (HCPA)

P615A SAFETY AND EFFECTIVENESS OF THE USE OF POLYPROPYLENE MESH TO REINFORCE THE HIATUS DURING LAPAROSCOPIC FUNDOPPLICATION Eduardo N Trindade, MD, Manoel R Trindade, MD, Vinicius von Diemen, MD, Ricardo F Francio; Department of Surgery, Universidade Federal do Rio Grande do Sul (UFRGS) and Division of Digestive Surgery, Hospital de Clínicas de Porto Alegre (HCPA)

P616A ANASTOMOTIC LEAKS IS STAPLER BRAND A RISK FACTOR? Bruce A Orkin, MD, Daniel A Popowich, MD; Tufts Medical Center

P617A PRESENT ENDOSCOPIC FLUORESCENCE PERFUSION ASSESSMENT OF COLORECTAL ANASTOMOSES— WILL THIS IMPACT OUTCOMES? THE PILLAR II STUDY. Michael J Stamos, MD, on behalf of the PILLAR II Study Investigators; University of California, Irvine

P618A LAPAROSCOPIC SURGERY WITH TME FOR LOWER RECTAL CANCER COMPARED WITH OPEN SURGERY: A PROPENSITY-MATCHED STUDY. Atsushi Ishibe, Shoichi Fuji, Shinshuke Suzuki, Ysusuke Suzuki, Amane Kanazawa, Jun Watanabe, Kazueteru Watanabe, Mitsutoshi Ota, Yasushi Ichikawa, Chikara Kunisaki, Itaru Endo; Department of Surgery, Gastroenterological Center, Graduate School of Medicine, Yokohama City University

P619A RIGHT ATRIUM MONITORING WITH TRANSESOPHAGEAL ECHOCARDIOGRAPHY COULD AVOID CRUCIAL CARBON DIOXIDE GAS EMBOLISM IN PURE LAPAROSCOPIC LIVER RESECTION. Akiko Oshita, MD, PhD, Masahide Shinzawa, MD, PhD, Masaru Sasaki, MD, PhD, Takashi Kumada, MD, Takuro Yamaguchi, MD, Hiyoshi Taogoshi, MD, Yasuhi Kato, MD, Hiyuki Nakamura, MD, PhD, Mikihiro Kanou, MD, Moheiy Kouyama, MD, PhD, Yuji Imamura, MD, PhD, Masakazu Nakao, MD, PhD, Astushi Nijima, MD, PhD; Fujita Health University Hospital

P620A LAPAROSCOPIC GASTRECTOMY FOR GASTRIC CANCER WITH SIMULTANEOUS ORGAN RESECTION Chang Min Lee, MD, Sang-Yong Son, MD, Sang-Hoon Ahn, MD, Ju-Hee Lee, MD, Do Jong Park, MD, PhD, Hyung-Ho Kim, MD, PhD; Seoul National University Bundang Hospital

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Marius Jones, MD, Cory Richardson, MD, Matthew Johnson, MD, Charles St. Hill, MD, Louise Shadwick, RN, Nathan Ozobia, MD, FACS; University of Nevada School of Medicine and University Medical Center, Las Vegas, NV

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Catherine Beck, MD, Dean Mikami, MD; The Ohio State University Medical Center

P673 ESOPHAGO-BRONCHIAL FISTULA IN CHILD TREATED WITH A COMBINED ESOPHAGOSCOPY AND FLUOROSCOPY GUIDED COIL AND GLUE EMBOLIZATION.  
Ashwin Pimpalwar, MD, FRCS, Pediatric, Surgery, Sheena Pimpalwar, MD; Division of Pediatric Surgery, Michael E Debakey Department of Surgery and division of Interventional Radiology, Department of Pediatric Radiology, Baylor college of medicine and Texas Children’s Hospital, Houston, Texas

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Jed F Calata, MD, Gopi Triparaneni, MD, Jasna Coralic, MD, Kunal Kochar, MD, John J Park, MD, Slawomir Marecki, MD, Leela M Prasad, MD; Advocate Lutheran General Hospital, Division of Colon and Rectal Surgery

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Kunal Kochar, MD, Gopi Triparaneni, MD, Jasna Coralic, MD, Jed F Calata, MD, John Park, MD, Slawomir Marecki, MD, Leela Prasad, MD; Advocate Lutheran General Hospital, Division of Colon and Rectal Surgery
Stereoscopic Augmented Reality for Laparoscopic Surgery

Xin Kang, Wilson Emmanuel, Kyle Wu, Aaron Martin, Timothy Kane, Craig A Peters, Kevin Cleary, Raj Shekhar, Shekhar Zayed Institute for Pediatric Surgical Innovation, Children’s National Medical Center, Washington DC.

**Objective:** Visual information is critical to safe and effective surgical outcomes, particularly in laparoscopic procedures where haptic feedback is limited. Traditional laparoscopes provide a flat representation of the three-dimensional (3D) operative field and are incapable of visualizing internal structures located beneath visible organ surfaces. Although computed tomography and magnetic resonance imaging can define internal anatomy, this information is hard to fuse in real-time into the surgeon’s visual field due to deformation of the anatomy.

Using real-time stereoscopic camera technology now available for conventional laparoscopic surgeries, we have developed a novel visualization capability called stereoscopic augmented reality (AR). Designed and developed by a team of engineers and minimally invasive surgeons, the stereoscopic AR system merges live laparoscopic ultrasound images with stereoscopic laparoscopic video. Stereoscopic AR visualization provides minimally invasive surgeons two new visual cues—(1) perception of true depth and improved understanding of 3D spatial relationship among anatomical structures, and (2) visualization of critical internal structures such as blood vessels, bile ducts, and surgical targets such as tumors, along with a more comprehensive visualization of the operative field.

**Methods:** The developed stereoscopic AR system has been designed with clinical translation as a near-term goal and integrates seamlessly into the existing surgical workflow. The system consists of a 5-mm diameter laparoscopic stereoscopic vision system (VSII, Visionsense, New York, NY) and a 10-mm diameter laparoscopic ultrasound system (flexFocus 700, BK Medical, Herlev, Denmark). Both imaging devices are FDA approved. The spatial registration between the two devices is achieved through an optical tracker (Polaris, Northern Digital, Waterloo, Canada). Purpose-built fixtures, on which reflecting spheres are mounted for optical tracking, are attached near the external tip of the two devices. Specialized software processes the streaming imaging data from the devices and registers those using optical tracking data in real time. The result is two ultrasound-augmented video streams (one each for left and right eyes), which when viewed on a 3D monitor give the operator a live stereoscopic AR view of the operative field. Under an Institutional Animal Care and Use Committee-approved protocol, the team conducted a series of stereoscopic AR interrogations of the liver, gallbladder and biliary system, kidneys, and lungs in two swine.

**Results:** The preclinical studies demonstrated the feasibility of stereoscopic AR during in-vivo procedures. The system recorded images from individual devices and the AR video. The figure shows representative images during stereoscopic AR interrogation of the liver. The AR image (right) resulted from overlay of the camera image (left) and the time-matched ultrasound image (center). Note our system produces two-channel stereoscopic video, but only single-channel images are shown here. The system exhibited unobservable latency with acceptable overlay accuracy.

**Conclusions:** We have presented, to our knowledge, the first in-vivo use of a complete system with stereoscopic AR visualization capability. This new capability introduces new visual cues and thus enhances visualization of the surgical anatomy within the existing clinical framework. Additional development and testing are necessary, but the system shows promise to improve the precision and expand the capacity of minimally invasive laparoscopic surgeries.

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Intra-operative Biliary Mapping During Laparoscopic Cholecystectomy Using Indocyanine Green and Near Infrared Fluorescent Cholangiography

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**Objective:** Bile duct injury remains the most feared complication of laparoscopic cholecystectomy. Intra-operative Cholangiography (IOC) is currently the gold standard for biliary imaging, but technical challenges and time requirements limit its use. We aim to establish Near Infrared Fluorescence Cholangiography (NIRF-C) as an effective, reliable method for identifying pertinent biliary anatomy during laparoscopic cholecystectomy to provide surgeons with an efficient method of real-time biliary imaging.

**Description/Methods:** NIRF-C is a non-invasive method of real-time, radiation free, intra-operative biliary mapping. Pre-operatively, a fluorescent dye, indocyanine green (ICG), is administered intravenously. Bound to plasma proteins, ICG is taken up by hepatocytes and excreted, unaltered, in bile within 20 minutes. A laser on the laparoscope excites ICG in the biliary tree eliciting near infrared fluorescence (~800 nm) which is then visualized as a green-colored image.
nm) which is captured by an image filter on the laparoscope. Surgeons may toggle between NIRF-C and the standard view on the laparoscope.

Eighty-two patients will undergo intra-operative biliary mapping with both NIRF-C and IOC. Two-and-a-half milligrams of ICG is administered intravenously 30-60 minutes prior to the procedure. NIRF-C is used to identify extrahepatic bile ducts before dissection, after initial dissection, and after final dissection. IOC is performed after final dissection and all data regarding NIRF-C has been recorded. During both techniques, data regarding the successful identification of the following structures is collected: right and left hepatic ducts, common hepatic duct, cystic duct, cystic/common hepatic duct junction, common bile duct (CBD), cystic artery, and anatomic variants. Length of procedure, complications, and time required to complete NIRF-C and IOC are also recorded.

**Preliminary Results:** Five patients underwent laparoscopic cholecystectomy with NIRF-C and IOC for symptomatic cholelithiasis, biliary colic, or chronic cholecysitis without complications. All patients were female with a mean age of 37.6 (28-60) and BMI of 26.7 (19.8-31.1). Mean time from ICG administration to incision was 61.2 min (40.91). Mean operative time was 74 min (48-137). Surgeons spent 3.4% less time on NIRF-C than IOC; average time spent on NIRF-C was 6 min (1.62-10.68), compared to 10.66 min for IOC (7.33-13.75) (Table 1).

NIRF-C identified over 80% of extrahepatic biliary anatomy during laparoscopic cholecystectomy. In all cases, the common hepatic duct was visualized before dissection. The incidence of cystic duct and cystic/hepatic duct junction visualization was 80% prior to dissection and 100% after final dissection. The incidence of CBD identification was 80% prior to dissection. In one case the CBD was not visualized after final dissection. IOC identified all biliary structures in 80% of cases. In one case, it was aborted due to technical difficulties (Table 2).

**Conclusions/Future Directions**

Preliminary data reveal that NIRF-C is non-inferior to IOC in successfully imaging extrahepatic biliary structures when use-limiting technical challenges of IOC are considered. Additionally, NIRF-C requires less time than IOC and is performed with fewer logistical barriers. These attributes affirm NIRF-C as a promising new method for routine cholangiography, potentially supplanting the need for IOC. Thus, NIRF-C appears to be a safe, effective, and efficient method for identifying the extrahepatic biliary anatomy during laparoscopic cholecystectomy.

**T004**

**TOTALLY ENDOSCOPIC GASTRIC Plication USING A NOVEL ENDOSCOPIC STAPLER**

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**Objective:** to date, bariatric surgery has proven to be the most effective treatment for obesity. Even though Roux -en- Y gastric bypass is considered the gold standard, investigation is focused on the development of less invasive techniques for the treatment of this disease. We describe our experience in Argentina performing a totally endoscopic gastric plication (TEGP) with the ACE (articulating circular endoscopic) stapler, without laparoscopic approach. Our objective is to present initial results during this trial, using the ACE stapler.

**Description of the technology and methods:** selective multicenter trial.

**Selection criteria:** patients with BMI ≥ 40 kg/m², with no previous history of bariatric surgery. The procedure was performed under general anesthesia, using the ACE stapler. By creating TEGPs, the volume and expansion of the fundus and greater curvature of the stomach were decreased to create an earlier sensation of fullness. The procedure was completed fully endoscopically, without laparoscopic assistance. The procedure began with the introduction of an overtube (OT) to protect the esophagus. The ACE stapler was then introduced under endoscopic view, and the instrument’s head was positioned towards the gastric mucosa. Vacuum was utilized to create full thickness serosa to serosa tissue apposition. The stapler then compressed tissue and deployed staples, creating a TEGP. From 7 to 10 TEGPs were placed in each patient. The primary endpoint of the study was to minimize the risk of adverse events, while the secondary objective was to determine effectiveness by assessing weight loss and improvements in, or resolution of, comorbidities.
Preliminary results: between April and September 2012, 22 patients were selected; 1 was excluded because of an esophageal abnormality that prevented introduction of the OT. Therefore, 21 patients underwent TEGP. Of them, 17 patients have had ≥ 1 month follow up to date. Mean age was 39, and initial BMI 36.9 kg/m². Mean operative time was 72 min, and patients were discharged home on postoperative day 1-2. Adverse events have all been transient and mild to moderate in severity, and of the type commonly seen for an endoscopic procedure under general anesthesia. No Serious Adverse Events occurred during the study. Weight loss was as follows:

<table>
<thead>
<tr>
<th>Follow up</th>
<th># patients</th>
<th>Mean % EWL</th>
<th>Mean % Total Weight loss (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 days</td>
<td>21</td>
<td>13.8</td>
<td>4.9</td>
</tr>
<tr>
<td>1 month</td>
<td>17</td>
<td>21.0</td>
<td>7.5</td>
</tr>
<tr>
<td>2 months</td>
<td>15</td>
<td>24.6</td>
<td>9.2</td>
</tr>
<tr>
<td>3 months</td>
<td>10</td>
<td>28.4</td>
<td>11.2</td>
</tr>
</tbody>
</table>

Conclusion: this initial experience demonstrates that TEGP for the treatment of obesity is feasible and safe. Short term results are encouraging. Long term follow up will prove its effectiveness.

ET006
Intraoperative near-infrared fluorescent cholangiography during Single Site Robotic Cholecystectomy Fabio Priora, MD, Luca Matteo Lenti, PhD, Ferruccio Ravazzoni, PhD, Alessandra Marano, MD, Giulio Argenio, MD, Giuseppe Spinoiglio, MD; Surgical Department - Unit of General and Oncologic Surgery - Ss. Antonio e Biagio Hospital

OBJECTIVE The application of the fluorescence with indocyanine green (IG) in robotic surgery is a recent challenging technique. Thanks to its favourable characteristics, this contrast agent can be easily injected (bolus) into the blood circulation during the surgery allowing a direct visualization of vascular anatomy of the organs and their perfusion. Moreover, since ICG has an exclusive biliary excretion, the intraoperative ICG near-infrared (NIR) fluorescent cholangiography may facilitate better understanding of hepatobiliary anatomy. On these principles is based the recent introduction of a NIR fluorescent system integrated into da Vinci Si HD System (Intuitive Surgical, Sunnyvale, CA).

DESCRIPTION The new robotic fluorescent system includes a surgical endoscope capable of visible light and NIR imaging, a 3DHD stereoscopic camera head that couples to the endoscope and an endoscopic illuminator that provides visible light and NIR illumination through the surgical endoscope via a flexible light guide. The surgeon can quickly switch between normal viewing mode (visible light) to fluorescence (NIR) by pressing the pedal of the surgical console, always viewing in high definition mode.

PRELIMINARY RESULTS From July 2011 to January 2012 a total of forty-five consecutive patients affected by pure symptomatic cholelithiasis underwent single site robotic cholecystectomy (SSRC) with ICG-NIR fluorescent cholangiography using the da Vinci Fluorescence Imaging Vision System. A dose of 2.5 mg of ICG was intravenously administered about 30-45 minutes before the surgery; if the fluorescence was not detected in the liver 60 minutes after the injection of the first dose, an extra dose of 2.5 mg was administered again. Once Calot's triangle was visualized, the fluorescence imaging mode was selected from the robotic camera view in order to identify the anatomy of the extra hepatic biliary tree. As Calot's dissection proceeds, when cystic duct and artery were ready to be resected, a second evaluation of the biliary anatomy was performed by switching again to fluorescence imaging modality. The rates of visualizations for cystic duct (CD), common hepatic duct (CHD) and common bile duct (CBD) were 93%, 88% and 91% before Calot's dissection and 97%, 97% and 97% after Calot's dissection, respectively. At least one duct was visualized in all patients (100%) prior to Calot's dissection. Any conversion to open or laparoscopy occurred; any additional ports have been placed and a second additional dose of ICG was never required. There were no bile duct injuries or other major complications. The mean hospital stay was 1.1 days and 92% patients were discharged within 24 hours after the surgery. There were no complications until 30 days follow-up.

CONCLUSIONS Our initial experience is the first prospective study described up to date in literature and confirms the benefits and the encouraging shortcomings of the robotic surgery combined with the fluorescence system. SSRC using ICG NIR fluorescent cholangiography has been shown to be effective and safe to detect the extra biliary anatomy without increasing the morbidity in addition to improve the safety of a single incision surgery. Currently, prospective multicenter studies evaluating the impact of the fluorescence in other surgical fields are in progress.

ET007
Validation of a 3-D Surgical Navigation System for Laparoscopic Liver Ablation Procedures using a Human Cadaver Model Chet W Hammill, MD, Maria A Cassera, Logan W Clements, PhD, Prashant Durgapur, MD, Jason S Lavers D Stefanusic, PhD; Liver and Pancreas Surgery Program, Providence Medical Center, Portland, OR and Pathfinder Technologies, Inc., Nashville, TN

Objective: The Explorer™ Minimally Invasive Liver (MIL) device is a 3-D image guidance system that is intended to be used as a navigation aid during laparoscopic liver ablation procedures and to be used in conjunction with other standard of care intraoperative imaging modalities.

Description: Laparoscopic hepatic ablation procedures are
Using Open Source Technologies to develop low cost Surgical Simulators

Shamyl B Mansoor, Zohaib Amjad, Asif Zafar, Dr; National University of Sciences and Technology, Holy Family Hospital

Introduction: Minimal Invasive Surgery, (MIS), is an advanced method performed by using instruments inserted through small keyhole incisions. In countries like Pakistan who have not completely adopted MIS, surgeons are trained for open surgery. In open surgery surgeons are used to handling things directly with their hands and instruments that are not confined to small spaces. Training of surgeons becomes a challenging prospect due to this paradigm shift. MIS requires the use of special skills by a surgeon which include skills like hand eye coordination, working in confined spaces and working with lack of depth perception. Dexterity loss takes place which should be compensated by repetitive training. This repetitive training is usually possible by using Simulators.

Objective: Commercial simulators like LapSim, LapMentor and ProMIS are available that are used for training of MIS techniques. These simulators are very costly and generally unaffordable for countries like Pakistan which have very limited budgets for public health and education. In this project our objective is to develop a cost effective local solution for Pakistan by using open source simulation engines.

Methodology: Generally a simulator consists of a simulation engine, a collision pipeline, a user interface and visualization methods. We have used SOFA (Simulation Open Framework Architecture) an open source simulation engine to develop our simulator system. This has allowed us to develop rapidly rather than developing everything from scratch. In order to train the surgeons we have divided the simulator into three kinds of trainings. Basic, General Surgery and Gynecology training modules.

Preliminary Results: Determining the accuracy of tumor targeting using an ablation device during clinical procedures is a difficult problem. To overcome this problem, a human cadaver model re-perfused with a contrast agent solution was utilized. Seven to eight biopsy clips (UltraClip® Dual Trigger Breast Tissue Marker, Bard Biopsy Systems, Tempe, AZ) visible on both ultrasound and CT were distributed throughout the liver in five cadavers. After the biopsy clips were placed, a “preoperative” CT was acquired of the cadaveric specimen for use in the Explorer™ MIL device. After randomization the clips were targeted using either laparoscopic ultrasound alone or laparoscopic ultrasound in conjunction with the Explorer™ MIL device. Two different percutaneous ablation instruments, the Covidien Evident™ MWA antenna or the Angiodynamics StarBurst® XI-enhanced RFA probe, were used for targeting. Once the tip of the probe was placed as close as possible to the specified target it was fixed in place and a “postoperative” CT was acquired. Over all of the ablation probe placements (N = 37), the mean distance between instrument tip and target marker was found to be 8.7±7.5mm for probe placements performed with laparoscopic ultrasound guidance and 6.8±3.8mm for probe placements using the Explorer™ MIL device in concert with laparoscopic ultrasound.

Conclusions & Future Directions: The results from the human cadaver evaluation of the Explorer™ MIL device indicate that there is a potential for the 3-D navigation system to provide some incremental benefit in laparoscopic ablation procedures. Future directions of the Explorer™ MIL device include more extensive evaluation of the benefit provided by tracked laparoscopic ultrasound and the interactive 3-D display of the ultrasound information. Additionally, ongoing research and development efforts are being made to transition to a electromagnetic tracking system which will allow for more accurate tracking of non-rigid surgical instrumentation.

ET009

WITHDRAWN

ET010

Endoluminal Greater Curvature Plication – a case series

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Endoscopic endoluminal greater curvature plication (EGCP) uses the Overstitch™ device (Apollo Endosurgery, Inc., Austin, TX) to create a narrow transverse banded suture line to create a variable stoma in the greater curvature of the stomach. Most common indications for EGCP are dysphagia and gastroesophageal reflux disease. This case report describes a unique surgical case in which EGCP was performed for the first time in Panamá, Central America.

The patient was a 71-year-old male with a history of chronic dysphagia secondary to achalasia and gastroesophageal reflux disease. He also had a history of multiple abdominal surgeries and a gastric pyloroplasty with duodenal stump for achalasia. The patient had been treated with medical therapy with no relief of dysphagia. The patient was considered a candidate for EGCP because of his clinical presentation and the consideration of other surgical options.

The operation was performed through a gastrostomy and duodenotomy with a transoral approach using the Overstitch™ device. Two bands were placed around the greater curvature of the stomach under direct endoscopic visualization. The device was used to create a transmural suture line to create a band of variable stoma size. The bands were secured with a locking mechanism and the device was removed. The gastrostomy and duodenotomy were closed with absorbable suture. The patient tolerated the procedure well and had resolution of dysphagia. The patient was discharged home on postoperative day 1.

Conclusion: This is the first case report of EGCP performed in Panamá, Central America. The patient tolerated the procedure well and had resolution of dysphagia. Further studies are needed to determine the long-term efficacy of this procedure.
REAL-TIME LAPAROSCOPIC IMAGERY ENHANCEMENT AND CLARIFICATION

Mahmoud Abu Gazala, MD, Jack Wade, Rick Hier, PhD, Randal Millair, BSEE, Chuck Stiewert, BSEE, Yoav Mintz, MD; Department of Surgery, Hadassah University Medical Center, Jerusalem, Israel.

Objective: Surgical smoke and lens fogging are major hindrances to the safe and efficient course of laparoscopy. Surgeons must interrupt their work to clean lens fog or evacuate smoke that obscure their view. The ClearView Image Processor is a new device currently in preclinical trials, which uses innovative real-time image processing algorithms to address these problems. It manages to reveal hidden layers of visual information without losing any visual detail, thus providing a level of visual clarity that has never before been possible.

Description of the technology: The Zmed ClearView Image Processor is a small dedicated computer system that receives a live video stream from the laparoscopic camera, applies image processing algorithms designed to eliminate distortion and improve image clarity, and then transmits the enhanced image stream to a display monitor in the operating room. The FPGA-based image processing functions add less than a few microseconds delay to the video, which is not significant with respect to the 16.6mS frame rate of the video. Therefore, the image processing results in zero latency video delay, and images are displayed in real time.

Preliminary results: During proof-of-concept studies, surgeons reported that the ClearView was able to eliminate foggy lens problems and improve visibility through surgical smoke, and resulted in significantly better overall visibility during minimally invasive surgeries. These features allow the surgeons to continue operating even if the standard view is heavily clouded with smoke, and decreases the number of times needed to clean the lens or pause for smoke evacuation.

Conclusions / future directions: This system allows significantly enhanced visualization in laparoscopy, which may allow for safer and more efficient surgery. Enhanced imagery may additionally allow for creation of hyper-realistic imagery by adjusting contrast to exaggerate subtle textural changes in order to expose the margins between embedded blood vessels and surrounding tissue, as well as healthy tissues and diseased tissue such as tumors, which may add vital visual information to help surgeons achieve better, faster and safer laparoscopic procedures.

Role Specific Views for Laparoscopic Surgery

Timothy W. Perez, MD, MPH, Marios Pattichis, PhD, Yuebing Jiang, PhD, Bilal Khan, MD; University of New Mexico, Department of Surgery, Dept of Electrical and Computer Engineering

Objective of the technology: In laparoscopic surgery the surgeon and the assistant share a single video perspective. However, the visual needs of a surgeon often differ from that of an assistant. The degree of detail necessary for the primary surgeon excludes the wider perspective an assistant needs to efficiently and safely manipulate their instruments. Role Specific Views (RSV) is a video image processing technology that we created to overcome this limitation. It creates separate video perspectives tailored for the differing clinical roles of the surgical team.

Description of the technology and method of its use: RSV was created using algorithms developed by our team with open source image processing software (OpenCV). The digital video signal from a Stryker 1088 camera was input to a video capture card (Epiphan DV12F克莱 mounted on a Intel 3.4 GHz 1 microprocessor based desktop computer. The panoramic and close-up images produced by these algorithms were output to separate monitors.

Preliminary results: Using the RSV technology, we have successfully produced both close-up and panoramic images from a single laparoscopic video signal. These images can...
be generated in real time and at a rate of 30 frames per second. Various interpolation methods were tested for the best balance between image resolution and continuous motion. Additional algorithms are in development to allow the close-up image to track the movement of a laparoscopic instrument.

Conclusions/Future directions: RSV technology can successfully generate real time, high quality panoramic and close-up images from a laparoscopic camera system. The clinical impact of RSV has yet to be studied, but a pilot study is proposed to evaluate RSV in a surgical environment. While optimal visualization is fundamental to efficient surgical team performance, the current laparoscopic imaging paradigm typically compromises between detail and panoramic views. By providing a visual perspective best suited for each member’s role, RSV promises to increase efficiency and safety of the surgical team.

ETO13
First Clinical Experience with the TransPyloric Shuttle (TPS®) Device, a Non-Surgical Endoscopic Treatment for Obesity: Results from a 3-Month and 6-Month Study
Frank Greenway, MD, George Marinos, MBBS, FRACP, MD, Chris Eliades, MBBS, V. Raman Muthusamy, MD, Kobi iki, MS, Cliff Kline, Hugh L Narciso, MSc, Daniel Burnett, MD; Prince of Wales Private Hospital (Sydney, NSW, AUS); BAROnova, Inc. (Goleta, CA, USA)

Objective: The TransPyloric Shuttle® (TPS®) is a non-surgical device that is delivered endoscopically to the stomach and is intended to enable significant weight loss for obese patients.

Description: The TransPyloric Shuttle has a functional shape consisting of a large spherical bulb connected to a smaller cylindrical bulb by a flexible tether and is composed primarily of medical grade silicone. In its functional, constructed state, the larger bulb assumes a shape of sufficient diameter to prevent migration from the stomach. The smaller bulb passes freely into the duodenum during normal peristalsis, allowing the device to self-orient and assume transpyloric positioning. Once transpyloric, the compliant base of the larger bulb engages the pylorus directly to create an intermittent seal intended to reduce the rate of gastric outflow, enabling an overall reduction in caloric intake and weight loss.

Method: TPS delivery and removal procedures are performed in outpatient endoscopic settings using a standard gastric overtube for access and esophageal protection. The device is preloaded in a delivery catheter as a low-profile, single-helical coil elongated to 65 cm for transoral delivery. During deployment, the delivery catheter is inserted through a pre-placed overtube, and the helical coil is dispensed into the stomach where the coil assumes its functional shape. Delivery is complete when the delivery system locks and releases the formed TPS. The device then resides in the stomach for the desired treatment period. During removal, an endoscope is inserted into the stomach through an overtube and standard endoscopic instruments are used to unlock, capture and remove the deconstructed TPS through the overtube.

A prospective, open-label, non-randomized, single-center study was approved and conducted to evaluate the safety and efficacy of the procedure and device. Twenty subjects with a mean body mass index (BMI) of 36.0 kg/m² ± 5.4 kg/m² were enrolled. Subjects were serially assigned to three-month and six-month treatment cohorts. Throughout the study, surveillance endoscopies were performed to evaluate the device and gastric tissues. Primary outcomes measured included percentage of excess weight loss (EWL) using the BMI method, total weight loss (WL), and adverse events.

Results: All devices were deployed and retrieved in 20 patients without complication. Mean procedure times for delivery and retrieval were 10.3 minutes ± 3.9 minutes and 12.9 minutes ± 6.4 minutes, respectively. Patients demonstrated minimal transient intolerance to the TPS and were able to quickly return to normal daily activity. Three-month patients demonstrated a mean EWL of 31.3% ± 15.7% and a mean WL of 8.9 kg ± 5.2 kg. Six-month patients achieved a mean EWL of 50.0% ± 26.4% and a mean WL of 14.6 kg ± 5.7 kg. Observations of persistent gastric ulceration in two patients resulted in the decision to remove both devices approximately 1 to 2 weeks prior to their scheduled removal dates. Both patients recovered fully with no residual adverse effects.

Conclusions: The TPS provides a safe and reliable non-surgical method for weight loss with exceptional patient tolerance compared to surgical weight loss interventions.
ETP01 WITHDRAWN.
ETP02 MECHANICAL EVALUATION OF ARTICULATED INSTRUMENTS AND CROSS-HANDED MANIPULATION IN LAPARO-ENDOSCOPIC Jiangfan Zhu; East Hospital, Tongji University School of Medicine
ETP03 FEASIBILITY OF THE TRANS-UMBILICAL ROUTE COMPARED WITH THE TRANS-ORAL ROUTE IN GASTRIC UPPER BODY ENDOSCOPIC SUBMUCOSAL DISSECTION: A PORCINE MODEL Sang-Ho Jeong, Ji-ho Park, MD, Young-Joon Lee, MD, Chang Yoon Ha, MD, Sang-Kyung Choi, MD, Soon-Chan Hong, MD, Eun-Jung Jung, MD, Young-tae Ju, MD, Chi-Young Jeong, MD, Woo-Song Ha, MD; Department Surgery, Department Internal Medicine of Postgraduate School of Medicine, Gyeongsang National University, Jinju, South Korea
ETP04 THE USE OF ELECTROSTATIC PRECIPITATION AS A NEW MEANS OF MAINTAINING VISUAL FIELD CLARITY DURING LAPAROSCOPIC SURGERY James Assell, BSc, MBChB, MRCS, Neil Warren, BSc, PhD, Pete Wall, BSc, MSc, PhD, Stuart Goddard, BSc, PGCE, Kim Cocks, PhD, CSTat, CSci, Paul Sibbons, FBMS, PhD, FRCPath, Jared Torkington, MS, FRCS; Welsh Institute for Minimal Access Therapy, University Hospital of North Staffordshire, UK
ETP05 TRANSAVERSAL MINIMALLY INVASIVE SURGERY (TAMIS) USING ETHICON™ SINGLE SITE (SSL™) DISPOSABLE DEVICE. INITIAL EXPERIENCE. Gustavo Sevá-Pereira, MD, Vilmar I Trombeta, MD, Luis Gustavo C Romagnolio; Instituto Pro-Gastro
ETP06 VIDEO-ASSISTED ANAL FISTULA TREATMENT (VAAF) - A PAINLESS PROCEDURE FOR TREATMENT OF ANAL FISTULA Manesh B Sahoo, MS, Anil Kumar, Post, Graduate; Department of Surgery, SCB Medical College, Cuttack, Odisha, India
ETP07 TWO ROCAR LAPAROSCOPIC REPAIR OF MORGAGNI HERNIA IN INFANTS AND CHILDHOOD: SIMPLIFIED TECHNIQUE. Medhat Ibrahim, MD, Assistant prof, paediatric surgery, Pediatrics Surgical Unit, Faculty of Medicine, Al-Azhary University, Nasr City, Cairo, Egypt, 11884
ETP08 LUNG WEDGE RESSECTION USING A SINGLE TRANSUBSPLICIAL INCISION: AN ANIMAL SURVIVAL STUDY Wei-Heun Chen, MD; Chang Gung Memorial Hospital
ETP09 SINGLE INCISION LAPAROSCOPIC CHOLECYSTECTOMY A SINGLE CENTRE EXPERIENCE USING CONVENTIONAL LAPAROSCOPIC INSTRUMENTS Manesh B Sahoo, MS, Anil Kumar, Post, Graduate; S C B Medical College
ETP10 ASSESSMENT OF A NOVEL SUBCUTANEOUS, BIOABSORBABLE SKIN CLOSURE SYSTEM P. J Hoopes, DVM, PhD, Kenneth S Danielson, MD, FACS, Charles H Rogers, PhD, Karen A Moodie, MS, DVM, Vicki J Scheidt, DVM, DAVID, Susan A Kane, CVT, Rendall R Strawberry, BS; The Geisel School of Medicine, and Thayer School of Engineering at Dartmouth College, and Opus KSD, Inc.
ETP11 SINGLE-PORT GASTROSTOMY TUBE PLACEMENT WITH THE TRANSENTERIX SPIDER DEVICE Yaphet Tilahun, MD, Steve Eubanks, MD, J. Paolo Arnoletti, MD, Sebastian G de la Fuente, MD; Florida Hospital Orlando and University of Central Florida
ETP12 DEVELOPMENT OF ULTRA HIGH SENSITIVITY CMOS HD CAMERA FOR ENDOCOSCOPIC SURGERY Hisae Aoki, MD, Toshiyuki Mori, MD, PhD, Hiromasa Yamashita, PhD, Toshio Chiba, MD, PhD; NHQ Murayama Medical Center, Kyorin University, National Center for Child Health and Development
ETP13 VISIBLE AND INFRARED DIFFUSE REFLECTANCE SPECTROSCOPY DURING THYROID AND PARATHYROID SURGERY R. Sharma, MD, N. B. Ben-Drori, MD, PhD, Fp, Wieronski, PhD, L. Allc, L.p.s. Stassen, MD, PhD; Department of Surgery, Maastricht University Medical Center, Maastricht, The Netherlands; Van ‘t Hoff Program on Medical Photonics, TNO, Eindhoven, The Netherlands
ETP14 AN INITIAL EXPERIENCE WITH A NEW RADIOFREQUENCY VESSEL SEALER IN LAPAROSCOPIC LIVER RESECTION Eren Berber, MD; Cleveland Clinic
ETP15 SINGLE INCISION LAPAROSCOPIC SURGERY WITH HOMEMADE GLOVE PORT: TIPS AND TRICKS Taylan Sezer, MD, Hayrullah Yildirim, MD, Ozgur Firat, MD, Ihlami Solak, MD, Cuneyt Hoscoskun, MD; Ege University School of Medicine, Department of General Surgery
ETP16 SKILLS ACQUISITION AND PROcedURAL PROFICIENCY IN NOVICES USING VIRTUAL REALITY Amina Boulhaj, MBBS, MSC, Hitendra Patel, PhD, Reza Farhanandfar, MSC, Allan Benjamin, MSc, Badriya Alaraimi, MSc, Bijendra Patel, MS, FRCS; London Simulation Center, Barts Cancer Institute, Queen Mary University of London
ETP17 AN INTELLIGENT MINIMALLY INVASIVE ATRUAMATIC INSTRUMENT TO MEASURE GRASPING CONDITIONS IN LAPAROSCOPIC SURGERY Jenifer Barrie, Miss, Louise Hunter, Miss, Adrian Hood, Mr, Peter R Culmer, Dr, Anne Neville, Professor, David G Jayne, Professor, r. The School of Mechanical Engineering, The University of Leeds, UK. 2. Academic Surgical Unit, St James’ University Hospital, Leeds, Uk.
ETP18 COMPARING LAPAROSCOPIC SKILL ACQUISITION BETWEEN AT-HOME AND IN-LAB TRAINING Michael Michael, Michael, Mr, Ali N Bahsoun, Mr, Saied Froghi, Dr, Frokar Dasgupta, Prof, Kamran Ahmed, Mr, King’s College London; Guy’s Hospital
ETP19 EDUCATIONAL IMPACT OF ROBOT ASSISTED SURGICAL TRAINING PROGRAM S. Khan, S. Raza, K. Ahmed, R. Din, A. Stegemann, M. Bienko, A. Chowriappa, T. Kesavadas, M. Bhandari, K. Guru; Guy’s and St Thomas NHS Foundation Trust, Roswell Park Cancer Institute, Guy’s Hospital, Roswell, PA Cancer
ETP23 A MULTI-INSTITUTIONAL RANDOMIZED CONTROLLED TRIAL OF AN AUGMENTED-REALITY SKILL ACQUISITION MODULE FOR ROBOT-ASSISTED SURGERY K. Ahmed, A. Chowriappa, K. Keshavadas, L. Peacock, G. Salas, A. Chowriappa, T. Kesavadas, K. Kaouk, J. Peacock, M. Menon, T. Kesavadas, K. Guru; Roswell Park Cancer Institute, Guy’s Hospital London; Henry Ford Hospital
ETP25 IRREVERSIBLE ELECTROPOREATION IN THE MANAGEMENT OF LOCAL ADVANCED PANCREATIC ADENOCARCINOMA: A PURE PALLIATIVE TECHNIQUE OR A MAJOR PROSPECT EVEN IN RESECTABLE Pancreatic ADENOCARCINOMAS? Carlo Molino, MD, Antonio Braucci, MD, Antonello Niglio, MD, Salvatore Minelli, MD, Francesco La Rocca, MD, Manuela Sellini, MD, Guido De Sena, MD; CARDARELLI HOSPITAL - NAPLES, ITALY

ETP027 ENDOSCOPIC ELECTROPROSTATIC FOR COLORECTAL CANCER: ENHANCING DRUG ABSORPTION Declan M Soden, PhD, Patrick Forde, PhD, Mira Sadadcharmah, MD, Michael Bourke, MD, Gerald C O’Sullivan, MB, MCh, MSc, FRCsI; University College Cork

ETP028 AUGMENTED ENVIRONMENTS FOR THE TARGETING OF HEPATIC LESIONS DURING ROBOTIC LIVER SURGERY Nicolas C Buchs, MD, Francesco Volonté, MD, Francois Pugin, MD, Christian Toso, MD, PhD, Matteo Fusaglia, Kate Ghavagan, Pietro Majno, MD, Matthias Peterhans, Stefan Weber, Philippe Morel, MD; Department of Surgery, University Hospital of Geneva

ETP029 AUGMENTED REALITY IN MINIMAL ACCESS SURGERY: A PARALLEL STUDY OF TWO SECOND GENERATION SEE-THROUGH HEAD MOUNTED DISPLAYS FOR AUGMENTED REALITY Luigi Manfredi, PhD, Zhaohong Xu, PhD, Benjie Tang, Dr, Chengli Song, Professor, Alfred Cuschieri, Professor; Institute for Medical Science and Technology, University of Dundee

ETP030 ENDOSCOPIC CLIP AS A TREATMENT FOR GASTRIC LEAK AFTER LAPAROSCOPIC SLEEVE GASTRECTOMY Gideon Sroka, MD, MSC, Ori Evai, MD, Tova Raynes, MD, Dean Keren, MD, Ibrahim Matter, MD; Department of General Surgery and Gastroenterology, Bnai-Zion Medical Center, Haifa, Israel.

ETP031 GASTROSCOPIC REDUCTION OF THE STOMACH WITH THE BAROSIC REASSEMBLING APPLIANCE IN MORbid OBESITY Givan F Paulus, MD, M van Avesaat, MD J M Conchillo, PhD, MD, A A Mascleel, PhD, MD, N D Bouvy, PhD, MD; Maastricht University Medical Center

ETP032 REAL-TIME INTRA-OPERATIVE BIOLARY IMAGING USING A LIGHTWEIGHT INFRARED COUPLER AND A STANDARD LAPAROSCOPIC SYSTEM Ramon Bergues, MD, David Ferrick, PhD, Vince Sullivan, Vladimir Breyberg, Roger Stern, PhD; LifeGuard Surgical Systems, Stellartech Research Corporation

ETP033 A NOVEL DEVICE FOR MAINTAINING CLEAR OPTICS DURING LAPAROSCOPIC SURGERY Daniel T McKenna, MD, Jennifer Choi, MD, Bruce Robb, MD, Don Selzer, MD, SamerMattar, MD; Indiana University School of Medicine

ETP034 HAS THE SURGICAL ROBOT HAD AN IMPACT ON THE MANAGEMENT OF BENIGN AND MALIGNANT DISEASES OF THE THORAX? Laura S Bernstein, MD, I. Michael Leitman, MD, Angelo Reyes, MD; Albert Einstein College of Medicine - Beth Israel Medical Center

ETP035 LOCAL OPERATED DETACHABLE ENDO-EFFECTOR MANIPULATOR FOR ENDOSCOPIC SURGERY Yuji Nishizawa, PhD, Yoshitakazu Kawaji, Jun Hashida, Myoungyu Shin, Yasuyuki Suzuki, PhD; Kagawa University, Osaka Institute of Technology

ETP036 THE APPLICATION OF COLLABORATIVE CLOUD TO THE 3D VISION SYSTEM: OPENING UP A NEW HORIZON IN HEALTHCARE Jadong Kim, SOMETECH, Inc.

ETP037 LOW COST AND EASY HANDLING DEVICES IN SINGLE INCISION LAPAROSCOPIC SURGERY: REPORT OF A CASE SERIES Eugenio Cuzzocrea, MD, Mattia Berzocchelli, MD, Lorenzo Livraghi, MD, Lorenzo Latham, MD, Alberto Mangano, MD, Luca Farassino, MD, Veronica Bianchi, MD; AZIENDA OSPEDALIERA OSPEDALE DI CIRCOLO E FONDAZIONE MACCHI, VARESE-ITALY.

ETP038 INTUITIVE CONTROL OF HYPER-RENDUNDANT NOTES PLATFORM BY COMBINING JACOBIAN AND FOLLOW THE LEADER ALGORITHMS Dae Kyung Sohn, MD, PhD, Kwang Gi Kim, PhD, Chang Nho Cho, MS; National Cancer Center in Korea

ETP039 TROSIM: NEW HAPTIC SIMULATOR FOR TROCAR INSERTION PROCEDURE Yong Won Seo, Ashirwad Chowriappa, PhD, Khurshid Guru, MD, Thenkurussi Kesavadas, PhD; University at Buffalo

ETP040 TOTALLY ROBOTIC BILIOPANCREATIC DIVERSION WITH DUODENAL SWITCH Ranjan Sudan, MD; Duke University Medical Center

ETP041 DEVELOPMENT OF MULTI-CHANNEL SHAPE-LOCKING OVERTURE FOR COLON PACKED PARTICLES FOR COLONOSCOPY Bodiyani Gibran Sentamu, BEng, Masayuki Teranuma, BEng, Takuro Ishii, MEng, Kazuya Kawamura, PhD, Tatsuo Igarashi, MD, PhD; Department of Medical System Engineering, Division of Artificial Systems Science, Graduate School of Engineering, Chiba University, Chiba, Japan

ETP042 GLOVE TECHNIQUE IN SINGLE-PORT ACCESS LAPAROSCOPIC CHOLECYSTECTOMY: RESULTS BASE ON THE LEARNING CURVE ANALYSIS Hon Phin Wong, MD, Hurng-Sheng Wu, MD, Dev-Aur Chou, MD, Shih-Wei Huang, MD; Show Chwan Memorial Hospital

ETP043 ENDOSCOPE HANDLE MANIPULATOR Luca Milone, MD, Ian Dardani, BS, Mallory Hennemuth, BS, David Staple, BS, Maria Torres, BS, Rami Clunis, MD, MVision

ETP044 HYDRODISSECTOR HOOK (A NEW DEVICE FOR SAFE DISSECTION) Sait Bakir, MD.

ETP045 TOTALLY STAPLED GASTROJEJUNAL ANASTOMOSIS USING HYBRID NOTES? SINGLE 12 MM TROCAR APPROACH Lino Polese, MD, PhD, Stefano Merigliano, MD, Gianfranco Da Dalt, MD, Roberto Luisetto, BD, Lorenzo Norberto, MD; Department of Surgery, Oncology and Gastroenterology, Padova University, Italy

ETP046 DEVELOPMENT OF A SMART TROCAR FOR AUTOMATED INSTRUMENT RECOGNITION DURING LAPAROSCOPIC SURGERY Giulia Toto, MS, Marc Garby, PhD, Brian J Dunkin, MD, FACs, Vadim Sherman, MD, FRCCS, FACS. Barbara Bass, MD; Department of Computer Science, University of Houston, Houston, TX; Methodist Institute for Technology, Innovation and Education, Houston, TX; Department of Surgery, The Methodist Hospital, Houston, TX

ETP047 MINIMALLY INVASIVE SURGERY (MIS) ASSESSMENT DEVICE: VARIANCE ANALYSIS Sami Abusneineh, PhD, Brent Seales, PhD; University of Kentucky

ETP048 NON-CONTACT PELVIC MAGNETIC RESONANCE (MR) PROTOCOL FOR IMAGING OF COMPLEX PERIANAL FISTULIZING DISEASES: C. Kim, Y. Hwang, T. Cho, M. C. Villanueva, MD, Kirthi Kolli, MD, James D McFadden, MD, Anjali S Kumar, MD, MPH; MedStar Washington Hospital Center - Section of Colon and Rectal Surgery, Department of Surgery and Department of Radiology

ETP049 THE USE OF THE HANDHELD USB MICROSCAPE FOR HIGH RESOLUTION ANOSCOPY Jacob Eisdorfer, DO, Suraj Alva, MD, Bertram T Chinn, MD, Theodore E Eisenstat, MD, Hurng-Sheng Wu, MD, Dev-Aur Chou, MD, Shih-Wei Huang, MD, Kim Tran, MD, Shih-Wei Huang, MD, Hon Phin Wong, MD , TW Liao, MD, TW Li, MD, TW Hurng, MD, TW Chang, MD, TW Hurng, MD, TW Chang, MD, TW Hurng, MD, TW Chang, MD

ETP050 THE NEW SPACE CREATOR FOR HEPATECTOMY Chung-Wei Lin, MD, Koo Foundation Sun Yat-Sen Cancer Center

ETP051 DEVELOPMENT OF THE SILICONE JACKET IRRIGATOR BIPOLAR IRRIGATION SYSTEM FOR THE SAFE, EFFECTIVE AND ECONOMICAL USE OF DIATHERMY Takao Toshima, Ryuichi Kumashiro, Norifumi Harimoto, Youichy Yamashita, Toru Iekagi, Tomoharu Yoshizumi, Tetsu Iida, Ken Shirabe, Yoshihiko Arai, MD, Hon Phin Wong, MD, Kazuya Kawamura, PhD, Hiroshi Kawahira, PhD, Tatsuo Igarashi, MD, PhD; Department of Medical System Engineering, Faculty of Engineering, Chiba University, Chiba, Japan
2013 Emerging Technology Poster Listing

ETP053 EXTRAPERITONEAL CISTERNA FOR SINGLE INCISION LAPAROSCOPIC SURGERY UNDER ARTIFICIAL ASCITES, Masayuki Teranuma, BS, Mnoru Shida, Clinical Engineer, Takuro Isihii, MEng, Yukio Naya, MD, PhD, Harufumi Makino, MD, PhD, Tatsuo Igarashi, MD, PhD; Department of Medical System Engineering, Division of Artificial System Science, Graduate School of Engineering, Chiba University, Chiba, Japan

ETP054 DEVELOPMENT OF AN AUTONOMOUS SMART GRASPERS TO PREVENT TISSUE SLIP DURING LAPAROSCOPIC SURGERY, A Brown, S I Brown, PhD, Z Wang, PhD, D I Maclean, PhD, A Cuscheri, Prof; University of Dundee

ETP055 SINGLE INCISION ROBOTIC ADENRECTOMY Lawrence E Tabone, MD, Chan Park, MD, Dana Portenier, MD; Duke

ETP056 A NEW LAPAROSCOPIC MODEL TO EVALUATE DEVICE TEMPERATURES AND COOLING TIMES IN A SURGICAL SETTING Joseph A Paulus, PhD, Xinliang Zheng, PhD, Bruce Dunne, PhD; Coviend, Surgical Solutions

ETP057 PERCUTANEOUS PLACED VENTRICULOGALLBLADDER SHUNTS: A NOVEL APPROACH TO AN OLD PROBLEM, M Nanchal, MD, W Naky, MS, N Goldstein, K McGeever, MD; St. Joseph’s Hospital and Medical Center Department of General Surgery, Phoenix, AZ

ETP058 INITIAL EXPERIENCE WITH CONFOCAL LASER ENDOMICROSCOPY IN THE PRE-OPERATIVE ASSESSMENT OF BARIATRIC PATIENTS Aliyah Kanji, MD, Luke Funk, MD, MPH, Dean J Mikami, MD, FACS; The Ohio State University Wexner Medical Center

ETP059 NONINVASIVE ENHANCEMENT OF THE BRAIN CIRCUIT OF INHIBITORY CONTROL IN OBSESE PATIENTS UNDERGOING LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING Souheil W Adra, MD, Greta A Magerowski, BA, George L Blackburn, MD, PhD, Miguel Alonso-Alonso, MD, MPH, Benjamin E Schneider, MD; Beth Israel Deaconess Medical Center, Harvard Medical School

ETP060 INVESTIGATION OF STAPLE HEIGHT EFFECTS ON TISSUE OXYGENATION AND BLOOD FLOW FOLLOWING SURGICAL TRANSECTION Ian Graham, Marisha L Godek, PhD, MS, Michael Stellon, Sally Carter, MS, Andrew Miesse, MS, Dwight G Bronson, MS; Coviend Surgical Solutions

ETP061 ENDOSCOPIC NEAR INFRA RED FLUORESCENCE ANGIOSCOPY TO ASSESS TECHNOLOGY AVAILABLE FOR PERFUSION ASSESSMENT DURING LAPAROSCOPIC SURGERY Elisabeth C Mclemore, MD, Michael Stamos, MD, Conor Delaney, MD, Anthony Senagore, MD, Sonia Ramamorthy, MD, Madhulika Varma, MD, Steven Wexner, MD, Joseph Martz, MD, David Margolin, MD, Larson David, MD, Lee Sang, MD; University of California, San Diego; University of California, Irvine; University of California, San Francisco; University of Southern California; Case Medical Center; Cleveland Clinic Florida; Weill Cornell; Mayo Clinic; Ochsner Clinic; Beth Israel

ETP062 LAPAROSCOPIC “SPLEEN FIRST APPROACH” FOR DISTAL SPLENIC VASCULARITY AND DISTAL PANCREATIC LESIONS Kumaran Ravindran, FRCS, Roopesh Khanna, DNB, Shanmugam P, MCh, Apollo Firstmed Hospitals, Chennai, India

ETP063 COMPARISON OF TISSUE RESPONSE TO FLAT AND STEPPED DESIGN LINEAR STAPLER CARTRIDGES Marisha L Godek, PhD, MS, Elizabeth M Contini, Jennifer M Diederich, MS, Vit Novacek, PhD, Frederic Turquier, PhD, Dwight G Bronson, MS; Coviend Surgical Solutions

ETP064 NEW DISPOSABLE TRANS-ANAL ACCESS PLATFORM: LONGER CHANNEL, LONGER REACH Elisabeth C Mclemore, MD, Alisa Coker, MD, Sonia Ramamorthy, MD, Garth Jacobsen, MD, Mark A Talalami, MD, Santiago Horgan; University of California, San Diego

ETP065 RING REMOVAL IN DELAYED GASTRECTOMY AFTER RYGB: A NOVEL APPROACH BY ENDOSCOPIC STENTING Josemberg M Campos, MD, Manoel Galvao Neto, MD, Lyz B Silva, MD, Galeno Magalhaes Neto, MD, Mayas Vasconcelos, Eduardo Pachu, MD, Alvareo Ferraz, MD; Universidade Federal de Pernambuco, Recife, PE, Brazil; Gastro Obeso Center, São Paulo, SP, Brazil

ETP066 TECHNOLOGY-BASED PROCEDURE FOR AUTOMATIC AND OBJECTIVE ERROR MEASUREMENT IN FLS PATTERN CUTTING TASK Jeff T Finan, David Wood, Caroline G Cao; Wright State University

ETP067 SURGICAL TEAM SKILLS TRAINER FEASIBILITY STUDY Bijal Khan, MD, Nova Szoka, MD, Timothy Perez, MD; University of New Mexico

ETP068 OH (MODIFIED CHERNEY) INCISION IN LAPAROSCOPIC RECTAL SURGERY Nahmyun Oh, PhD; Sanghwa Ko, MD, Hongaje Jo, PhD, Hyunsung Kim, PhD; Pusan National University Hospital

ETP069 EASY TO LEARN INTRACORPOREAL KNOT TYING TECHNIQUE FOR LAPAROENDOSCOPIC SINGLE INCISION SURGERY (LESS) Monica Farcas, MD, Elias J Wehbi, MD, Brian Carrillo, PhD, Walid Farhat, MD; Department of Urology, University of Toronto, Toronto, ON; Department of Urology, Hospital for Sick Children, Toronto, ON; CIUTh, Hospital for Sick Children, Toronto, ON, Canada

ETP070 DEVELOPMENT OF HIGH DEFINITION THREE-DIMENSIONAL LAPAROSCOPY SYSTEM WITH CONVERGENCE CONTROL AND ITS APPLICATION TO ADVANCED CANCER SURGERY Young-Woo Kim, MD, PhD, Hee-Bong Yang, CBO; National Cancer Center, Korea; Somotech Inc.

ETP071 ROBOTIC DUODENAL POLYECTOMY AND PYLOROPLASTY Michael Sosin, MD, George Gillian, MD; Georgetown University Hospital

ETP072 NOVEL DYNAMIC RETRACTOR: ADVANCING MINIMALLY INVASIVE SURGERY BY REDUCING PORTS Kurt Roberts, MD; Yale University

ETP073 SUPERFICIAL PRE-COAGULATION, SEALING AND TRANSSECTION (SPST) METHOD: A BLOODLESS AND ECO-FRIENDLY LAPAROSCOPIC LIVER TRANSSECTION TECHNIQUE Naruhiko Ikoma, Osamu Itano, MD, PhD, Go Oshima, MD, Shinichi Fukuhara, MD, Yuko Kitagawa, MD, PhD; Keio University School of Medicine, University of Texas Health Science Center at Houston

ETP074 TRANSANAL MINIMALLY INVASIVE SURGERY (TAMS): AN EARLY EXPERIENCE Mark A Casillas, Jr, MD, MS; University of Tennessee Graduate School of Medicine, Department of Surgery

ETP075 SINGLE SITE ENDOSCOPIC BREAST LUMPECTOMY: A CASE SERIES Suriyana Ghani, MBBS, Tikfee Gee, MBBS, MS, Siti Binti Ya Lim, MD; University Putra Malaysia

ETP076 EARLY RESULTS OF A COMPARATIVE STUDY OF A NOVEL REVERSIBLE WEIGHT LOSS SURGERY VS SLEEVE GASTRECTOMY FOR MORBID OBESITY Tikfee Gee, MBBS, MS, Kheng Wah Ong, MBBS, MS, Zubaidah Hanifa, MBBS, MS, Oo Myint Minn, MBBS, MS, Suriyana Ghani, MBBS, Shu Yu Lim, MD; Universiti Putra Malaysia

ETP077 NON-RANDOMISED COMPARATIVE STUDY COMPARING CONVENTIONAL VERSUS SINGLE ACCESS LAPAROSCOPIC (SAL) RIGHT HEMICOLECTOMY Tikfee Gee, MBBS, MS, Kheng Wah Ong, MBBS, MS, Zubaidah Hanifa, MBBS, MS, Oo Myint Minn, MBBS, MS, Suriyana Ghani, MBBS, Qsiti Fathi Nik, MBBS; Universiti Putra Malaysia

ETP078 STENT INDUCED GASTRIC EROSION FOR ENDOSCOPIC RETRIEVAL OF NONADJUSTABLE GASTRIC BAND Harvey Rainville, MD, Mai Mariam Baghahai, MD, Todd Wilson, MD, Brad Snyder, MD, Erik B Wilson; University of Texas at Houston Medical School

ETP079 EVALUATING THE PERFORMANCE OF A NOVEL LAPAROSCOPIC TOOL HANDLE DESIGN AND UPPER EXTREMITY BIOMECHANICS Rami M Short, MS, Kryztofher D Tsung, MS, Earl C Downey, MD, Donald D Blwowski, PhD, Andrew S Merryweather, PhD; SAGES 2013
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<td>Hospitals and skill labs in North America now have a brand new option when choosing a singular trainer for minimally invasive surgical training, LAP-X, a product of the Netherlands, is the smallest, lightest, most portable and affordable laparoscopic skills trainer on the market for hands-on skills training in surgical residency programs. Visit <a href="http://www.ems-works.com/Products/LAP-X">http://www.ems-works.com/Products/LAP-X</a></td>
</tr>
<tr>
<td><strong>EIZO INC.</strong> #536</td>
</tr>
<tr>
<td>5710 Warland Drive</td>
</tr>
<tr>
<td>Cypress, CA 90630</td>
</tr>
<tr>
<td>Tel: 800-800-5202 Fax: 562-431-4811</td>
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<tr>
<td>Website: <a href="http://www.eizo.com/na">www.eizo.com/na</a></td>
</tr>
<tr>
<td>EIZO will showcase their high quality line of LCD monitors for use in all surgical applications. Monitors range from diagnostic quality monitors to large format displays which substitute for multiple monitors in surgical operating rooms. Their long term reliability and stability make them a trusted part of many workstations in hospitals and facilities around the world.</td>
</tr>
<tr>
<td><strong>ELSEVIER, INC.</strong> #809</td>
</tr>
<tr>
<td>1600 JFK Boulevard, Suite 1800</td>
</tr>
<tr>
<td>Philadelphia, PA 19103</td>
</tr>
<tr>
<td>Tel: 800-545-2522 Fax: 215-239-3494</td>
</tr>
<tr>
<td>Website: <a href="http://www.elsevierhealth.com">www.elsevierhealth.com</a></td>
</tr>
<tr>
<td>ELSEVIER is a leading publisher of health science publications, advancing medicine by delivering superior reference information and decision support tools to doctors, nurses, health practitioners and students. With an extensive media spectrum—print, online and handheld, we are able to supply the information you need in the most convenient format.</td>
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<tr>
<td><strong>ENCISION INC.</strong> #706</td>
</tr>
<tr>
<td>6797 Winchester Circle</td>
</tr>
<tr>
<td>Boulder, CO 80301</td>
</tr>
<tr>
<td>Ph: 303-444-2600 Fax: 303-444-2693</td>
</tr>
<tr>
<td>Website: <a href="http://www.encision.com">www.encision.com</a></td>
</tr>
<tr>
<td>Encision’s ACTIVE ELECTRODE MONITORING system is a laparoscopic safety system that continuously monitors Encision’s monopolar laparoscopic instruments during surgery to eliminate the risk of stray energy burn injury to patients during laparoscopy.</td>
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<tr>
<td><strong>ENDOCHEmE</strong> #540</td>
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<tr>
<td>1180 Wills Road</td>
</tr>
<tr>
<td>Alpharetta, GA 30009</td>
</tr>
<tr>
<td>Tel: 888-682-3836 Fax: 866-567-8218</td>
</tr>
<tr>
<td>Website: <a href="http://www.endochoice.com">www.endochoice.com</a></td>
</tr>
<tr>
<td>EndoChoice, a platform technology company, provides devices, diagnostics, infection control and imaging for specialists treating a wide range of gastrointestinal diseases. To learn more visit <a href="http://www.endochoice.com">www.endochoice.com</a> or call 888-682-3836.</td>
</tr>
<tr>
<td><strong>ENDOEVOLUTION, LLC</strong> #705</td>
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<tr>
<td>51 Middlesex Street</td>
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<tr>
<td>North Chelmsford, MA 01863</td>
</tr>
<tr>
<td>Tel: 978-251-8088 Fax: 978-251-8585</td>
</tr>
<tr>
<td>Website: <a href="http://www.endo360surgical.com">www.endo360surgical.com</a></td>
</tr>
<tr>
<td>EndoEvolution is a medical device company introducing and developing the most advanced, next generation MIS (Minimally Invasive Surgery) automated suturing devices with the potential to save hospitals as much as $100,000 a year and catalyze substantial growth for this MIS sector. RE reusable and more advanced automated suturing products are designed to be easier to use and to learn to use, more effective in surgery, and deliver substantial cost-savings to hospitals compared to competitive MIS suturing devices, including the market-leading disposable devices.</td>
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<tr>
<td><strong>ENDOCAStIc SOLUTIONS</strong> #222</td>
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<tr>
<td>Silver Donor</td>
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<tr>
<td>555 Twin Dolphin Drive, Suite 650</td>
</tr>
<tr>
<td>Redwood City, CA 94065</td>
</tr>
<tr>
<td>Tel: 650-226-2225 Fax: 650-226-2201</td>
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<tr>
<td>Website: <a href="http://www.endogastricsolutions.com">www.endogastricsolutions.com</a></td>
</tr>
<tr>
<td>EndoGastric Solutions is the pioneer in incisionless surgical procedures for the treatment of upper gastrointestinal diseases. TIF (Transoral Incisionless Fundoplication) with the EGIS® EsophyX device creates a robust esophagogastric fundoplication to treat GERD. Please visit us at booth #222.</td>
</tr>
<tr>
<td><strong>ENDOSTIM</strong> #503</td>
</tr>
<tr>
<td>4041 Forest Park Ave., Suite 220</td>
</tr>
<tr>
<td>St. Louis, MO 63108</td>
</tr>
<tr>
<td>Tel: 314-615-6346 Fax: 314-614-6344</td>
</tr>
<tr>
<td>Website: <a href="http://www.endostim.com">www.endostim.com</a></td>
</tr>
<tr>
<td>EndoStim is dedicated to treating GERD through electrical stimulation. EndoStim’s LES Stimulation System, implanted laparoscopically, delivers low-energy electrical pulses to the lower esophageal sphincter and is designed to prevent reflux without affecting normal esophageal functions such as swallowing. EndoStim’s device is CE approved but not cleared for sale in the US.</td>
</tr>
</tbody>
</table>
Exhibits

ENTEROMEDICS, INC.  #803
2800 Patton Road
St. Paul, MN 55113
Tel: 651-634-3003 Fax: 651-634-3212
Website: www.enteromedics.com
Enteromedics(r) Inc. has developed VBLOC(r) vagal blocking therapy, a unique, therapeutic approach designed to treat a range of gastrointestinal and metabolic diseases. VBLOC Therapy is a first-in-class weight loss treatment designed to help address the growing global health crises associated with obesity and its co-morbidities, such as diabetes and hypertension.

ETHICON  #611
Platinum Donor
4545 Creek Road
Cincinnati, Ohio 45242
Tel: 513-337-7000
Website: www.ethicon.com
Ethicon, Inc. and Ethicon Endo-Surgery, Inc., two companies with long histories of medical innovation, do business under the Ethicon brand. Their surgical technologies and products (including sutures, staplers, clip appliers, trocars and meshes) are used around the world to treat colorectal and thoracic conditions, women’s health conditions, hernias, cancer and obesity. Ethicon, Inc. and Ethicon Endo-Surgery, Inc. are part of the Johnson & Johnson Family of Companies.

FLARED MEDICAL  #342
2655 Ulmerton Road
Clearwater, FL 33762
Tel: 888-454-0295 Fax: 877-820-0962
Website: www.flaredpatch.com

GENERAL SURGERY NEWS  #534
545 West 45th Street, 8th Floor
New York, NY 10036
Tel: 212-957-5300 Fax: 212-957-7230
Website: www.generalsurgerynews.com

GORE & ASSOCIATES, INC.  #511
Silver Donor
1505 N. Fourth Street
P.O. Box 2400
Flagstaff, AZ 86003-2400
Tel: 928-771-2771 / 800-437-B181
Website: www.goremedical.com
Gore Medical Products Division has provided extensive therapeutic solutions to complex medical problems for more than three decades. The extensive Gore Medical family of products includes vascular grafts, endovascular and interventional devices, surgical materials for hernia repair, soft tissue reconstruction, staple line reinforcement, and sutures for use in vascular, cardiac and general surgery.

HET SYSTEMS  #922
253 Main Street, Suite 270
Matawan, NJ 07747
Tel: 855-544-2867 (Customer Service)
Fax: 855-217-5882
Website: www.hetsystems.com
HET Systems is an innovator in the treatment of symptomatic hemorrhoids, a condition that affects over 15 million people in the U.S. The company has developed the proprietary HET™ Bipolar System technology for the treatment of Grade I and II hemorrhoids. HET is a unique non-surgical solution designed to provide a simple, quick, painless, incisionless, treatment with proven positive outcomes for patients, while providing a cost effective alternative for healthcare providers.

HIRATA PRECISIONS CO., LTD.  #902
007 New Technology Exhibition
2-10-17 Kunugiya
Kamagaya, Chiba 273-0128 Japan
Tel: 81-(0)47-386-2101 Fax: 81-(0)47-386-2102
Website: http://hope-denshii.co.jp
Hirata’s newly developed “Endo Relief™” is a small diameter needle forceps for ultra-minimally invasive surgery. Its size of the tip is the same as conventional forceps; 5mm. Its shaft made of titanium, however, is much thinner, 2.4mm in diameter, and boasts high rigidity and durability.

HRA HEALTHCARE RESEARCH & ANALYTICS  #802
400 Laniandex Plaza
Parsippany, NJ 07054
Tel: 973-240-1200 Fax: 973-463-1888
Website: www.hraresearch.com
Our team of experienced interviewers will be distributing carefully developed questionnaires. We’ll be gathering the answers to vital marketing and clinical questions- answers that can affect the introduction of new products or the continuation of existing healthcare products and services.

INTEGRA  #822
311 Enterprise Drive
Plainsboro, NJ 08536
Tel: 609-275-0500 Fax: 609-799-3927
Website: www.integralfive.com
Integra is a leader in Acute Care Surgical Products. The company’s portfolio includes quality instrumentation solutions for your sterile processing and OR needs in laparoscopic, general, cardiovascular, neuro, plastic and reconstructive surgery. Products include Luxtect® illumination systems and cables, instruments from Jarit®, Redmond™, Padgett®, Omni-Tract® table-mounted retractors and CIMS® Consulting Services.

INTUITIVE SURGICAL, INC.  #101
Gold Donor
1266 Kifer Road
Sunnyvale, CA 94086
Tel: 408-523-2200 Fax: 408-523-1390
Website: www.intuitivesurgical.com
Intuitive Surgical, Inc. is the global technology leader in robotic-assisted, minimally invasive surgery. The Company’s da Vinci® System enables general surgeons to offer a minimally invasive approach - even to patients with complex conditions. The da Vinci System can be used across a wide array of surgical specialties, including bariatric, esophageal and colorectal surgery.

KARL STORZ ENDOSCOPY  #523
Platinum Donor
2151 East Grand Avenue
El Segundo, CA 90245
Tel: 800-421-0837
Website: www.karlstorz.com
KARL STORZ provides minimally invasive solutions for virtually every surgical specialty. In addition to a range of standard-setting endoscopes and precision instruments, we offer the Image 1® FULL HD platform that acquires and displays wide 16:9 1080p60 images, providing the optimal viewing experience necessary for the latest minimally invasive procedures.

LEXION MEDICAL  #504
545 Atwater Circle
St. Paul, MN 55103
Tel: 877-9LEXION Fax: 651-636-1671
Website: www.lexionmedical.com
LEXION offers the Insuflow(r) SYNERGY(tm) Port Series allowing access integrating gas humidification and warming in a unique cannula with enhanced flow dynamics and radial dispersion and PneuVIEW(r) XE Laparoscopic Smoke Elimination System that virtually eliminates 100% of dangerous combustion by-products generated during laparoscopic procedures keeping the abdomen clear while maintaining the pneumoperitoneum.
Exhibits

LIFECELL #401
One Millennium Way
Branchburg, NJ 08876
Tel: 908-947-1100 Fax: 908-947-1200
Website: www.lifecell.com

LifeCell™ develops and markets innovative tissue repair products. LifeCell™ products include: Strattice™ Reconstructive Tissue Matrix for plastic, reconstructive, and general surgical applications, and the SPY Elite™ System for the visualization and evaluation of tissue perfusion.

LIPPINCOTT, WILLIAMS & WILKINS #640
202 9th Street SE
Washington, DC 20003
Tel: 202-543-8710 Fax: 703-664-0402
Website: www.lww.com

Lippincott Williams & Wilkins, a Wolters Kluwer Health company is a global provider of information, business intelligence and point-of-care solutions for the healthcare industry and a leading international publisher of medical books, journals, and electronic media. We proudly offer specialized publications and software for physicians, nurses, students and clinicians.

MARKET ACCESS PARTNERS #817
3236 Meadowview Road
Evergreen, CO 80439
Tel: 303-526-1900 Fax: 303-526-7920
Website: www.marketaccesspartners.com

MAYO CLINIC REFERRING PHYSICIAN OFFICE #125
4500 San Pablo Road - Stabile 170N
Jacksonville, FL 3224
Tel: 904-953-6867 Fax: 904-953-0759
Website: https://www.mayoclinic.org/online-services/physicians.html

MEDERI THERAPEUTICS, INC. #417
Bronze Donor
8 Sound Shore Drive, Suite 304
Greenwich, CT 06830
Tel: 203-930-9980 Fax: 203-869-1013
Website: www.mederitherapeutics.com

Mederi Therapeutics manufactures Stretta for treatment of GERD, and Secca for bowel incontinence. These safe, effective treatments fill the void between failed conservative therapies and invasive and expensive alternatives, like surgery or implants. Secca and Stretta therapies are minimally invasive, outpatient, and promote rapid recovery. The ultra-efficient MDRF1 Generator provides RF energy for both Secca and Stretta.

MEDIGUS #907
007 New Technology Exhibition
7A, Industrial Park, P.O. Box 3030
Omer 84965, Israel
Tel: +972 8646 6880 Fax: +972 8646 6770
Website: www.medigus.com

Focused on innovative endoscopic devices, Medigus developed an entire endoscopic system for transoral fundoplication treatment for GERD. Based on its proprietary technologies, including the world’s smallest video cameras, respective processors and endoscopy suits, and various types of rigid, semi-flexible and flexible disposable endoscopes, Medigus develop endoscopy systems for partner companies.

METABOLIC AND BARIATRIC SURGERY ACCREDITATION AND QUALITY IMPROVEMENT PROGRAM (MBSAQIP) #228
633 North Saint Clair Street
Chicago, IL 60611
Website: www.facs.org

The American College of Surgeons (ACS) and the American Society for Metabolic and Bariatric Surgery continue their dedication to quality improvement through the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP). The MBSAQIP accredits facilities that have undergone an independent, rigorous peer evaluation in accordance with nationally recognized bariatric standards and participate in the program’s longitudinal outcomes database. Please visit booth 228 for information regarding program standards and enrollment.

METHODIST INSTITUTE FOR TECHNOLOGY, INNOVATION AND EDUCATION #912
Center of Excellence
6670 Bertner Avenue, 5th Floor
Houston, TX 77030
Tel: 713-441-7912 Fax: 713-383-7888
Website: www.mfmtexas.com

MICROLINE SURGICAL #517
800 Cummings Center, Suite 166T
Beverly, MA 01915
Tel: 978-922-9810 Fax: 978-922-9209
Website: www.microlinesurgical.com/

Microline Surgical develops and manufactures laparoscopic reposable instruments, providing a cost effective eco-friendly solution for today’s OR - unsurpassed in precision, reliability and performance. The Microline MiFusion energy line provides a broad spectrum of instruments that seal and divide tissue using proprietary thermal fusion technology, featuring instruments optimized for both open and laparoscopic procedures.

MIMIC TECHNOLOGIES, INC. #301
811 First Avenue, Suite 408
Seattle, WA 98104
Tel: 800-918-1670 Fax: 206-623-3491
Website: www.mimicsimulation.com

Mimic Technologies is a pioneer and leader in robotic surgery simulation. Visit us to test the dV-Trainer™, a highly realistic simulator for the da Vinci® Surgical System. Independently validated, Mimic’s dV-Trainer™ provides cost-effective, on-demand training to move surgeons up the learning curve fast without the real robot!

MINIMALLY INVASIVE DEVICES #537
1275 Kinneair Road
Columbus, OH 43212
Tel: 614-484-5036 Fax: 866-452-8196
Website: www.midisurgical.com

MINISTRY HEALTH #236
900 Illinois Ave.
Stevens Point, WI 54481
Tel: 715-342-6583 Fax: 715-343-3331
Website: www.ministryhealth.org/recruitment

Ministry Health Care is a top-rated health care system in Wisconsin. Our physicians enjoy state-of-the-art facilities, a collaborative environment, lucrative compensation and most importantly... BALANCE. We are currently recruiting an experienced General Surgeon. Please stop by to learn more!

NEOSURGICAL #823
Bronze Donor
820 East Terra Cotta Avenue, #149
Crystal Lake, IL 60014
Tel: 513-658-0328
Website: www.neosurgical.com

neoSurgical™ is a new, innovative company focused in minimally invasive surgery. We are committed to launch products that address unmet needs, make surgery simpler and provide superior outcomes. Our first launch is neoClose™ UNIVERSAL and neoClose™ HASSON. These two products offer a unique way to close trocar ports in three simple steps.

SAGES 2013 Scientific Session & Postgraduate Course
NEW WAVE SURGICAL CORPORATION
3700 NW 124th Ave. Suite 135
Coral Springs, FL 33065
Tel: 866-346-8883 Fax: 866-536-6793
Website: www.newwavesurgical.com
Laparoscopic Care Kit with D-HELP. The only system designed to keep the laparoscopic and robotic lens defogged and clean from start to close!
- Replaces ALL other defogging products
- Cleans the scope
- Defogs the scope
- Remains heated for 5 hours
- Protects the scope
- White balances the scope
- Cost effective

NITI-ON CO. #905
007 New Technology Exhibition
2-1-2-4 Sakae-cho Funabashi-shi, Chiba 273-0018, Japan
Tel: +81-(47)431-1871 Fax: +81-(47)431-1878
Website: www.nition.co.jp
Our company has celebrated 100th anniversary two years ago. My grandfather started off healthcare business with “Otorhinolaryngology” device manufacturing in Tokyo. His workmanship is handed over years to today. BJ instrument with POP+ puncture in state-of-the-art single incision endoscopy surgery concept exhibited here is the result of our history and continuity. I am your “Quartermaster” and ready to meet your need with “KEEP CALM AND CALL.” ¾ Hiroshi Honda

NOVADAQ TECHNOLOGIES, INC. #635
2585 Skymark Avenue, Suite 306
Mississauga, Ontario, L4W 4L5 Canada
Tel: 905-629-3822 Fax: 905-629-0282
Website: www.novadaq.com
Novadaq provides clinically relevant fluorescence imaging products for use during surgery. Novadaq’s core SPY® technology enables visualization of vascular blood flow and tissue perfusion. Use of SPY has been shown to contribute to fewer postoperative complications. Novadaq’s PINPOINT endoscopic fluorescence imaging system is ideal for use in a variety of minimally invasive surgical applications.

NOVATRACT SURGICAL #240
170 Fort Park Road, Suite 13
Madison, CT 06433
Tel: 203-533-9710 Fax: 203-687-4290
Website: www.novatract.com
The NovaTract™ Retractor is the first 5mm dynamic laparoscopic retraction system to assist in all your procedures, enabling the reduction of ports and assistants, without the need to change surgical technique. Be the first to see this innovative device in action. NovaTract™. Enabling surgeons to do more with less.

OBP MEDICAL INC. #922
360 Merrimack St Building 9
Lawrence, MA 01843 USA
Tel: 1-888-300-2946 Fax: 1-866-636-2718
Website: www.obpmedical.com
OBP Medical, Inc. is a developer, manufacturer and supplier of innovative, self-contained single-use medical devices. OBP Medical is proud to offer the ANOSPEC, a single-use anoscope with a built-in, hands-free, single-use LED light source. The ready-to-use device eliminates the time and expense of reprocessing and reduces the risk of cross-contamination in the medical setting.

OLIVE MEDICAL #243
2302 South Presidents Drive, Ste. D
Salt Lake City, UT 84120
Tel: 866-300-1145 (toll-free) Fax: 801-823-2238
Website: www.olivemedical.com
Olive Medical is dedicated to providing affordable HD MIS imaging equipment to the OR by using a combination of superior technology, cutting-edge imaging sensors, and lean manufacturing processes. The TCK1 HD Camera Head and OVB1 HD Camera Control Unit introduce affordable “True HD” MIS visualization with intuitive controls and lightweight ergonomics that will meet your cost-containment needs.

OLYMPUS AMERICA INC. #III
Platinum Donor
3500 Corporate Parkway
Center Valley, PA 18034
Tel: 484-896-5000 Fax: 484-896-7133
Website: www.olympusamerica.com
Olympus develops solutions for healthcare professionals that help improve outcomes and enhance quality of life for their patients. By enabling less invasive procedures, innovative diagnostic and therapeutic endoscopy and early stage lung cancer evaluation and treatments, Olympus is transforming the future of healthcare.

OPUS KSD, INC. #636
210 Worcester Road, PO Box 35
Peacham, VT 05862-0035
Tel: 802-592-3570 Fax: 802-748-1778
Website: www.subq-it.com
Opus KSD, Inc. has developed the SubQ It!® bioabsorbable skin closure system, a disposable stapler pre-loaded with bioabsorbable fasteners which are inserted subcutaneously. Although it has many other applications, the SubQ It!® system was specifically designed for closing small 7-10 mm incisions used in laparoscopic procedures.

PARÈ SURGICAL #634
7332 South Alton Way, Suite H
Centennial, CO 80112
Tel: 303-689-0187
Website: www.paresurgical.com
5mm Quik-Stitch™ with pre-tied locking Roeder knot. New 2.7mm MicroGrip Percutaneous Retractor for Single & Reduced Port applications. Nitinol Jaws provide optimal strength. Ratcheted, one-handed operation. Light Up! your open surgeries with the shadowless NOVA Surgical Light Source Pencil!

PRACTICE PARTNERS IN HEALTHCARE, INC. #336
1 Chase Corporate Drive, Suite 200
Birmingham, AL 35244
Tel: 888-310-1311 Fax: 205-824-6251
Website: www.practicepartners.org
Practice Partners is a developer, manager and minority equity partner of single and multi-specialty ambulatory surgery and endoscopy centers. We specialize in the development of new centers and the optimization of existing centers, in partnerships with physicians and with physician/hospital joint ventures. We deliver success-proven expertise with no development fees.

PRACTIS, INC. #402
8720 Red Oak Blvd., Suite 220
Charlotte, NC 28217
Tel: 704-887-5300 Fax: 866-204-1275
Website: www.practisinc.com
Since 1998, Practis has been designing, developing and maintaining custom websites and online applications for medical practices and health-care organizations. Our clients represent health-care organizations nationwide, ranging in size and scope, across the spectrum of care. The Practis team has extensive experience in the web as it relates to health care. For more information, visit booth number 402.

RETRACTION LIMITED #824
444-452 Des Voeux Road West
Hong Kong
Tel: +852-3110-6011 Fax: +852-2168-4120
Website: www.retraction.com.hk
RETRACTION is radically re-thinking endoscopic retraction. REVEEL, RETRACTION’s new device, features Active Traction technology, which facilitates gentle liver retraction, without crushing pressure. REVEEL offers unparalleled exposure of the operating site and is optimized for large, fatty livers. Faster, easier to use, and incredibly strong, REVEEL is truly a next-generation retractor.
SV373, the world’s leading provider of medical simulation with education solutions for every budget. The LAP Mentor and GI-BRONCH Mentor, as well as their portable units, provide advanced simulation of complete MIS procedures. Simbionix and SAGES developed a hands-on FES endoscopy skills exam on the GI Mentor.

Simulated Surgical Systems, LLC #334

5225 Sheridan Drive
Williamsville, NY 14221
Tel: (716) 632-5022 Fax: (716) 632-5022
Website: www.simulatedsurgicals.com
RoSS™ is a portable, stand-alone Robotic Surgery Simulator that teaches novice surgeons the skills required for operating the da Vinci surgical robot. RoSS™ uses virtual reality to teach the fundamentals of robot-assisted surgery. RoSS™ is the “only” simulator featuring full-length surgical procedures in 3D, a.k.a. RoST.

Sometech #901

007 New Technology Exhibition
2F Byuksan Digital Valley III
212-13 Guro-Dong Guro gu
Seoul, Korea Tel: +82-2-2025-2516 Fax: +82-2-2025-1009
Website: www.sometech.com
Sometech was established in 1989 and gained a lot of respect in the medical industry by providing good service and quality of medical devices. We manufacture high tech surgical devices such as 3D laparoscope, radio frequency electrosurgical devices, and medical cameras. We thrive to deliver the best for the doctors!

Stryker Endoscopy #223

Diamond Donor
5900 Optical Court
San Jose, CA 95138 Tel: 800-624-4422 Fax: 800-729-2917
Website: www.stryker.com/endoscopy
Stryker is one of the world’s leading medical technology companies and is dedicated to helping healthcare professionals perform their jobs more efficiently while enhancing patient care. The Company offers a diverse array of innovative medical technologies, including reconstructive, medical and surgical, and neurotechnology and spine products to help people lead more active and more satisfying lives. For more information about Stryker, please visit http://www.stryker.com.

Sumitomo Bakelite Co., Ltd. (Japan) #900

007 New Technology Exhibition
Higashi-Shina, 2-Chome Shinagawa-ku, Tokyo 140-0002 Tel: 81-3-5462-4811 Fax: 81-3-5462-4894
Website: www.sumibe.co.jp/english/index.html
Sumitomo Bakelite offers superior technology in Japan. Excellent products are for Laparoscopic, Endoscopic surgery.
- GATE is for Single incision laparoscopic surgery.
- PTEG is for Percutaneous Trans-Esophageal Gastro-tubing.
- SBknife is for POEM and ESD.

Surgical Innovations #728

Clayton Wood House Unit 6, Clayton Wood Bank Leeds LS16 6CZ – U.K. Tel: +44 (0)113 230 7597 Fax: +44 (0)113 230 7598
Website: www.surginnovo.com
Surgical Products #704

Magazine

199 East Badger Road, Suite 101 Madison, WI 53713 Tel: 608-920-7000 Website: www.surgicalproductsmag.com Surgical Products is the only operating room publication to reach all 7,500 hospitals and ACS while covering the three major buying influences in the operating room and related departments:
- Surgeons
- O.R. Supervisors & Nurses
- Purchasing/Materials Management
Surgical Products is a source of information providing surgeons, surgical staff, and purchasing representatives valuable product and procedural information.
The global leader in medical simulation training, Surgical Science offers the only laparoscopic virtual reality system proven to improve performance in the operating room. Using the most advanced modeling technology, validated curricula, uniquely flexible scenarios and challenges, and an intuitive user interface, Surgical Science is committed to enhancing performance through practice.

**Surgical Science, Inc.**
7831 Bush Lake RD E, Suite 100
Minneapolis, MN 55439
Tel: 612-568-6541
Website: www.surgicalscience.com

**TransEnterix, Inc.**
635 Davis Drive, Suite 300
Durham, NC 27713
Tel: 919-765-8400  Fax: 919-765-8459
Website: www.transenterix.com

TransEnterix is advancing laparoscopy with its innovations in flexible and micro laparoscopic instruments. The SPIDER® Surgical System provides surgeons enhanced capabilities to perform triangulation via single site access with flexible, articulating instruments. The 2.7mm SPIDER MicroLap instruments are reusable and offer a complete set of instruments as well as laparoscopes.

**Tuebingen Scientific #404 Medical GMBH**
Dorffackerstr 26
Tuebingen 72074, Germany
Tel: +49-7071-98979-145  Fax: +49-7071-98979-240
Website: www.tuebingen-scientific.com

Tuebingen Scientific Medical GmbH develops, produces and markets instruments and accessories for minimally invasive surgery. Our mission is to create products that significantly improve endoscopic surgery and match up with today's economic reality in the hospital industry.

**UC San Diego Center #917 for the Future of Surgery**
Center for Excellence
Center for the Future of Surgery
9500 Gilman Drive, MC 0740
La Jolla, CA 92037
Tel: 858-246-1004  Fax: 858-246-1066
Website: www.cfs.ucsd.edu

At UC San Diego Center for the Future of Surgery, our surgeons and scientists are advancing surgical techniques by investigating, developing, testing and teaching procedures that will revolutionize the field of surgery. With an emphasis on patient safety, innovation and research, our surgeons are redefining surgery.

**USF Health Center #913 for Advanced Medical Learning and Simulation**
Center of Excellence
12901 Bruce B Downs Blvd., MDC46
Tampa, FL 33612
Tel: 813-224-7840  Fax: 813-224-7842
Website: www.CAMLS-US.org

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North Billerica, MA 01862
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Website: www.vtimedical.com

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