Disclosures

- I am a paid consultant for:
  - Applied Medical
  - Covidien
  - Olympus

Large flat polyps?

ESD
Endoscopic Submucosal Dissection

- Heralded by the Japanese
- Applied mainly to gastric lesions
- Extensive training program in Japan
- Once you have mastered stomach then attempt colon

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Endoscopic Submucosal Dissection

- 100-200 gastric cases before colorectal procedures

Mainor Antillon, M.D., MBA, MPH
Rectal Villous Adenoma

Mainor Antillon, M.D., MBA, MPH

**ESD**

**ESD: Surgical Endoscopy March 2010**

- Management of large flat colorectal polyps
- Safe introduction of ESD to colorectal surgeons in the USA
  - How to handle high perforation rate?

**SOLUTION**

**Plan - Colorectal ESD**

- ASCRS New Technology Committee & SAGES support ESD training
- GOAL
  - Develop safe introduction of ESD to colorectal surgeons
  - Combine Colonic ESD with laparoscopy
  - Combine rectal ESD with TEMS

**Plan - Colorectal ESD**

- Lab Course Criteria
  - Experienced laparoscopist
    - >100, >20/year
  - Experienced endoscopist
    - >500, >100/year
  - TEM availability
  - C02 Availability
  - Irrigating system
  - Experienced staff
  - DESIRE!!

**Plan - Colorectal ESD**

- Successful completion in LAB
  - Need to set criteria
  - Repeated training at home with devices
  - RECTUM – TEM back-up
  - COLON – lap assisted – three trocar
  - Safety
  - Billing
Plan - Colorectal ESD

• CANNOT BEGIN UNTIL

• Availability of equipment
  – Double channel gastroscope with irrigation at 6 o’clock
  – Grasper
  – Flex knife
  – Appropriate fluid mixture
• Willingness to share data

Technique
Identification and Injection

Technique
Incise Edge

Technique
Dissection and Control Bleeding

Technique
Dissection

Technique
Removal
Technique
Laparoscopy

Results
• 10 Cases – 3 converted to TEMS or resection for failure to progress
• 7 Cases completed
• 4 rectum, 1 sigmoid, 2 right colon
• Lesion size 4 cm (median) (2.5 – 7)
• Laparoscopy – 5
  – Repair bowel - 3
  • One serosal injury cecum

• LOS 1 day – 6 pts, 2 day – 1 pt
• Complications - none
• Pathology
  – Dysplasia 3
  – Adenoma 3
  – Inflammatory 1
  – Cancer 0

Plan - Colorectal ESD
• Initial Evaluation
  – 10-15 colorectal/ endoscopic surgeons
• Await their initial results

Plan - Colorectal ESD
• Start more courses
  – ACS Fall 2011 - could be more didactic and initial reports with lab but no promise of devices
  – ? full day course with dry lab in AM and porcine lab in afternoon
  – ? SAGES Spring 2013
  – ? ASCRS Spring 2013

Combined Use:
A Fusion of Technologies

More Interventional
Less Invasive
Conclusions

- ESD is a minimally invasive endoscopic technique that could become a viable alternative to surgery in the therapy of large non-pedunculated colonic neoplasia

- ESD should become a minimally invasive alternative to laparoscopic surgery and TEM in the therapy of large non-pedunculated rectal neoplasia