Update in Advanced Therapeutic Endoscopy

Oleh Haluszka, M.D.
Chief, Gastroenterology
Temple University
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Disclosure of Conflicts of Interest

- Oleh Haluszka, MD, has affiliations with Boston Scientific, Covidien Ltd., Fujinon (Consultant).
Technology

• Sustaining technology: relies on incremental improvements to already accepted technology

• Disruptive technology: new technology that unexpectedly displaces existing technology; often unrefined, may appeal to limited audience, and disregarded by big companies as it may lack a practical application

Christensen, The Innovator’s Dilemma, 1997
TO BE HONEST, I'M HAVING TROUBLE KEEPING UP WITH ALL THIS NEW TECHNOLOGY.
Endoscopic Trends

- Increased utilization of advanced imaging technologies to drive “realtime” therapeutic maneuvers
- Increased utilization of EUS for access to “the inaccessible” and for therapy
- More aggressive endoscopic resections and other procedures facilitated by new closure methods
Therapeutic Procedure Rooms
Confocal Endomicroscopy

Tubulovillous Adenoma with Focal Adenocarcinoma

Dysplasia BE

Cancer BE
## Pancreatic Cystic lesions

<table>
<thead>
<tr>
<th>Type</th>
<th>CEA</th>
<th>Amylase</th>
<th>Cytology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pseudocyst</td>
<td>Low</td>
<td>High</td>
<td>Histiocytes</td>
</tr>
<tr>
<td>Serous Cystadenoma</td>
<td>Low</td>
<td>Low</td>
<td>Neg</td>
</tr>
<tr>
<td>Mucinous Cystadenoma</td>
<td>High</td>
<td>Low</td>
<td>Columnar Mucinous Cells</td>
</tr>
<tr>
<td>IPMN</td>
<td>High</td>
<td>High</td>
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</tbody>
</table>
Pancreatic Cystic lesions

Serous Cystadenoma
Acronyms

- **EMR**: endoscopic mucosal resection or endoscopic mucosectomy; technique for injecting submucosa to lift mucosal lesions for snare resection
- **ESD**: endoscopic submucosal dissection; lift followed by endoscopic dissection with specialized cutting tools (endoscopic scalpels); more time, labor, and device intensive
EMR Laterally Spreading tumor colon
Underwater EMR

Second published experience involving 21 patients undergoing UEMR of 43 lesions with mean size of 20 mm

Endoscopist experienced in EMR

Utilized pediatric colonoscope, cap, water jet, and duck-bill snare, hot biopsy forceps and APC for clean up 97.7% successful resection; 2.3% complication of delayed bleeding

Wang AY, Surg Endosc; Online publication 2013
Ovesco OTSC
Endoscopic Suturing
INTRODUCTION: We present our data from January 2012 to November 2013.

METHODS: Included are the first 50 patients treated with the U.S. Food and Drug administration-approved commercially available endoscopic suturing device (Overstitch; Apollo Endosurgery, Austin, TX) by performing an endoscopic vertical gastroplasty (EVG).

We performed transoral endoscopic gastric volume reduction with a non absorbable 2-0 suture, by placing free-hand, full-thickness, closed spaced interrupted sutures through the gastric wall: these sutures extended from the antrum to the gastro-esophageal junction.

Patients included 36 females and 14 males, ages ranging from 16 to 61 years; 8 patients had a BMI > 35 and 42 patients with BMI < 35. All procedures were performed under general anesthesia.

The median procedure time was 110 min. Complications included mild bleeding in 15 that did not require any intervention, and self-limited abdominal pain in one. All patients were discharged the same day.

RESULTS: During established follow up at 1, 3, 6 and 12 months, the average weight loss in pounds was 20.46 (n=48), 35.13 (n=39), 38.18 (n=32) and 36.12 (n=18), respectively.

CONCLUSION: EVG appears to be an effective and safe method in the short-term treatment of obesity.
Approaching the Inaccessible

- EUS access to bile duct, pancreas, fluid collections, adjacent lumenal organs
- Rendez-vous procedures
- Definitive treatment
Transduodenal Rendezvous via EUS
Xlumena

Bottrop GB1 c fluoro.mov
Questions?
Thank You!

Please hand your completed CME or CE evaluation to the registration attendants on your way out.