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ABIM Board Certified physicians need to complete their MOC activities by December 31, 2020 in order for the MOC points to count toward any MOC requirements that are due by the end of the year. No MOC credit may be awarded after March 1, 2021 for this activity.

ACG will submit MOC points on the first of each month. Please allow 3-5 business days for your MOC credit to appear on your ABIM account.

MOC QUESTION

If you plan to claim MOC Points for this activity, you will be asked to: Please list specific changes you will make in your practice as a result of the information you received from this activity.

Include specific strategies or changes that you plan to implement. THESE ANSWERS WILL BE REVIEWED.
ACG Virtual Grand Rounds
Join us for upcoming Virtual Grand Rounds!

Week 22: Fecal Incontinence: Innovations in Clinical Assessment, Diagnosis, and Treatment
Satish S.C. Rao, MD, PhD, FACG
August 20, 2020 at Noon EDT

Week 23: The Role of Endoscopy in the Management of Pancreatic Disorders
Vanessa M. Shami, MD
August 27, 2020 at Noon EDT

Weeks 24-26 are also open for registration now!
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Disclosures:

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*Dr. DeVault has no relevant financial relationships.*

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*Dr. Gabbard has no relevant financial relationships.*
Dysphagia
A Practical Approach

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Department of Medicine
Mayo Clinic Florida
Past President
American College of Gastroenterology

Dysphagia

• From the Greek *dys* (difficulty, disordered) and *phagia* (to eat)
• Most patients complain that food sticks, hangs up, or stops, or they feel that the food “just won't go down right.”
• “Do you have trouble swallowing?”
  • May not cover distal complaints
  • End stage achalasia patients may not interpret this correctly as well
  • Psychological issues can be confusing
    • Bulimia
    • Rumination
Oropharyngeal swallowing mechanism

Lateral view of bolus propulsion during swallowing
Figure 6 Simultaneous manometry and fluoroscopy of barium swallow in a normal subject.

History: Key Questions

- Where do you feel things hang up?
  - Proximal versus distal

History: Key Questions

- If Proximal
  - Do you cough with meals?  Timing of cough?
  - Have you had pneumonia recently?  Aspiration?
  - Does the food come back up?  Mouth, Nasal?
  - Liquids, solids or both

- If Distal
  - Liquids, solids or both
  - Do you have to regurgitate?  How often?
  - Have you had pneumonia recently?  Aspiration?
  - Progressing or stable?  Time frame
  - Heartburn history

History: Additional Questions

- Weight loss?
- Pain with swallowing (odynophagia)?
- Any significant life changes?
- How soon after swallowing does the sensation appear?
- Hypersalivation and drooling
- Voice changes
- Other neuromuscular issues
- Denture and other teeth issues
- Gurgling noises in neck or chest
Physical Examination

- Head and neck exam
  - Lymph nodes
  - Thyroid (always check reflexes)
  - Deviation
  - Have them flex and extend neck
  - Oral exam (teeth, candidiasis, other lesions)
- Thorax
  - Lymph nodes
  - Pulmonary changes of aspiration
- Abdominal Exam

Don’t forget about Zenkers!

Schatzki’s Ring


Esophagitis can cause dysphagia

Malignant Dysphagia

Practical Issues in Diagnosis and Therapy of Dysphagia

- Barium Swallow
  - To modify or not?
- Endoscopy
  - Biopsy if normal?
  - Empiric dilation?
  - Dilation techniques?
  - Steroid injections?
- Manometry controversies
Modified Barium Swallow
Speech Therapist

- Advantages
  - Good for aspiration and penetration
  - Allows for simultaneous therapy

- Disadvantages
  - Often does not fully evaluate distal esophagus
  - Does not always include static images
  - Increased cost of speech therapist

Radiology Directed Barium Swallow

- Advantages
  - Widely available
  - Static images always available
  - Solid bolus challenge

- Disadvantages
  - Operator dependent
  - Less detail for proximal issues
Wire Directed Dilation


Maloney Dilation

Balloon Dilation

Figure 29. Endoscopic dilation. Technique for through-the-scope (TTS) dilation of an esophageal stricture.


Pneumatic Dilation

Figure 34. Technique for pneumatic dilation of achalasia.

Achalasia Subtypes

A: Type I
B: Type II
C: Type III

EGJ-OO with Jackhammer

Is this type III achalasia or spasm?
Treatment of other spastic disorders

- Agents to lower pressure
  - Nitrates- SL Tablet or Spray
  - Calcium Blockers- Nifedipine (SL or oral) or diltiazem orally
  - Sildenafil
- Agents to lower sensitivity
  - Trazodone 25-50 mg qhs
  - TCA Low dose
  - SSRI
- Botox
- Rarely Myotomy
  - ?Role of POEMS
Opioids

- Increased risk of EGJ outflow obstruction and other disorders such as achalasia
- AJG 2015;110:979-84

![Graph showing proportion of patients with EGJ outflow obstruction and achalasia type III compared to those studied on and off opiates.](image)
Phosphodiesterase Inhibitors

Fig 2. Course of pressure wave amplitude (means ± sd) during the 60-min period after sildenafil (group A = *) and placebo (group B = O) administration (arrow). B = basal values. Wave amplitude after sildenafil is significantly lower than both the corresponding basal values from 10 to 60 min (*) and the corresponding placebo values from 10 to 40 min (O) except for the 35-min period.

Treatment of “weak” disorders

• Rule out and/or treat reflux
• Check for drug related changes
• Prokinetics
• Swallowing therapy
  • Take advantage of gravity!
• Aperistalsis at increased risk of stricture and Barrett’s
HRM Take Home Points from my experience

- Computer tends to overcall EG Outflow Obstruction
- Type I and II achalasia are very specific but still take a history and compare to a barium study
- Be careful with Type III
  - Compare with barium
  - Does not respond as well to treatment
  - Is it a DES variant??
- Spasm or DES also needs to be carefully correlated with the rest of the clinical situation
- HRM has expanded number of “weak” diagnoses, but all need to be carefully correlated with the clinical situation
  - Small breaks probably are “normal”
- Impedance may help better understand the significance of motility findings on HRM

Dysphagia After Foregut Surgery

- Anti-reflux surgery
- Achalasia (POEM or Myotomy)
- Bariatric surgery
Postoperative Dysphagia Following Fundoplication

- Temporarily Persistent (3 years):
  - Open Surgery: 41%
  - Laparoscopic Surgery: 67% (*P = 0.05, N = 57)

- Persistent (>3 months):
  - Open Surgery: 0%
  - Laparoscopic Surgery: 12% (†P = 0.016, N = 103)


Normal Appearing Fundoplication

Hainaux et al AJR 2002
Slipped Fundoplication

Hainaux et al AJR 2002

Slipped Fundoplication
Intrathoracic Migration

Johnson et al.
Gastrointest Endosc 2000

Too Tight Fundoplication

Migliore
Euro J CardioThorac Surg 1999
Initial Treatment of Dysphagia is Dilation

Esophageal Dilation Postfundoplication: Frequency and Outcome

Patients undergo dilation after fundoplication n = 29 (12%)

- Dilation for dysphagia n = 20
  - Dysphagia resolved n = 12
  - Dysphagia not resolved n = 6
  - Lost to follow-up n = 2

- Dilation for other indications n = 9
  - Symptoms resolved after dilation n = 0

N = 233,
Approach to Post Fundoplication Dysphagia

- Initial Dilation
  - 20 mm (60 french)
- If no results
  - Barium Swallow
- If wrap looks “OK”
  - Can do additional dilations and/or follow symptoms
  - May be a role for 30 mm pneumatic
- Abnormal wrap by barium or endoscopy
  - Consider revision

Weight loss surgeries
Gastric Banding

- Location of the band is key
  - Too far proximal: Dysphagia and dysmotility
  - Too far distal: Predisposes to GERD
- Tightness of band matters in both cases
- Deflating band often does not change anatomy
- Pre-op hiatal hernia matters
- Esophageal motility can fail

Esophageal motility in Gastric Band

- Distal esophageal pressure
- Lower esophageal sphincter pressure
- Intraluminal pressure at the level of the Band
- Pouch pressure and high pressure zone length

OBES SURG (2009) 19: 905
FIGURE 2. Barium swallow of a 37-year-old patient 5 years postoperatively with stage III esophageal dilatation and the same patient 3 months after band deflation.

### Estimate of Bariatric Surgery Numbers, 2011-2017

Published June 2018

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<td>—</td>
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<td>0.3%</td>
<td>2.6%</td>
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The ASMBIS total bariatric procedure numbers are based on the best estimation from available data (BOLD, AOS, MBWAP, National Inpatient Sample Data and outpatient estimations).

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### Dilated Proximal Sleeve

[Image of a dilated proximal sleeve]

OBES SURG (2010) 20:140–147
**Gastric Bypass**
- Good GERD surgery
- If pouch is too big, patient can still have GERD
- Pre-op hiatal hernia matters
- Sometimes GERD and a stenosis are difficult to sort out
- Impedance testing may be helpful rather than acid only testing
- If acid reflux is documented and refractory, total gastrectomy may be needed

**Summary**
- History and physical should localize and prioritize the approach to patients with dysphagia
- Barium swallow is the best first test
  - MBS if proximal or pulmonary complaint
  - Standard esophageal x-ray if distal
- Endoscopy with dilation is appropriate once the location of the lesion is localized
- Special populations need a specialized approach
Questions?

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