Gastroenterology & Hepatology Advanced Practice Providers

2021 Fourth Annual National Conference

September 9-11, 2021

Red Rock Hotel – Las Vegas, NV

Jointly provided by the Annenberg Center for Health Sciences at Eisenhower and Gastroenterology and Hepatology Advanced Practice Providers.
Dysphagia: Not So Hard To Swallow

Gwen Cassidy, APN
Digestive Health Center, Northwestern Medicine
Chicago, IL
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Gwen Cassidy, APN
No financial relationships to disclose.
Dysphagia

- Subjective sensation of difficulty or abnormal swallowing.
Other Definitions

- Odynophagia: Pain with swallowing
- Globus: Non-painful sensation of a “lump” in the throat
Dysphagia Is an Alarm Symptom
Acute Dysphagia

- Inability to swallow solids or liquids
- Food impaction
- Medical emergency – risk for perforation
- Glucagon is sometimes administered
- EGD to remove the foreign object
- Further management to assess generally done outpatient
<table>
<thead>
<tr>
<th>Esophageal (Dysphagia)</th>
<th>OP (Dysphagia)</th>
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</thead>
<tbody>
<tr>
<td>Occurs after a swallow</td>
<td>Difficulty initiating swallow</td>
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<tr>
<td>Feels food is stuck in chest</td>
<td>Cervical region</td>
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<tr>
<td>Chest pain</td>
<td>Aspiration</td>
</tr>
<tr>
<td>Regurgitation</td>
<td>Piecemeal swallows</td>
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<tr>
<td>Food moving slowly</td>
<td>Drooling</td>
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<td></td>
<td>Coughing during food consumption</td>
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HPI is Key

If they drink water, will food go down?

Do they eat more slowly than their friends?

Do they have to drink water with every bite?

Is their food moving slowly?

Solids or liquid or both?

Progressive or intermittent?
Role of Telehealth

- Good opportunity for telehealth
- Access for patients – able to get in for procedures
- Improves follow up for chronic conditions
Exam

• Watch your patient drink water!
• Have them point and show you where the food is getting stuck
Oropharyngeal Dysphagia

- Best diagnosed by video fluoroscopy (cookie swallow)
- Follows with speech therapy
- Some GI providers will treat
Differential Diagnosis for Esophageal Dysphagia

- Stricture
  - Peptic
  - Post-radiation
- Carcinoma
- Eosinophilic Esophagitis
- Webs/rings
- Vascular abnormalities
- Infections esophagitis
- Herpes esophagitis
- Pill esophagitis
- Diverticulum
- Scleroderma
- Functional dysphagia
Motility Disorders

- Achalasia
- EGJ Outflow Obstruction
- DES
- Jackhammer Esophagus
- Absent Contractility
- Ineffective Esophageal Motility
- Opioid-induced dysmotility
Diagnostic Tools

- EGD
- Manometry (high-resolution preferred)
- Functional Lumen Imaging Probe
- Timed barium esophagram (with tablet)
Timed Barium Esophagram

- Images at 1, 2 and 5 minutes
- 12.5 mm tablet administered if no column
Manometry

- Measurement of pressure within various parts of the GI tract
- Catheter inserted transnasally
- Discomfort can be expected
- Can be done under endoscopic placement
Integrated Relaxation Pressure

- Mean EGJ pressure measured with an electronic equivalent of a sleeve sensor for 4 contiguous or non-contiguous seconds of relaxation in the ten-second window following deglutitive UES relaxation
EGD

• Can rule in or out many causes of dysphagia, including being a key tool in CA workup
• Biopsies for CA, EOE and other disorders
• If safe, dilation can be performed for stricture
• Can avoid motility testing if clear reason for dysphagia is noted
Treatment Will Be Based on Findings
43 yo F PMH of HLD presents to clinic with worsening dysphagia (solids, now softs) x 6 months. She reports that she “always eats slower than other people” and requires a lot of water to get food down. She reports that cold water helps with dysphagia. Reports occasional chest pain when food is stuck. Reports regurgitation at night, especially when she eats a large meal before bed.
Workup Reveals:

- Column at 1, 2 and 5 mins for TBE
- EGD with no stricture or no abnormal bx
- FLIP DI 2.4 (low)
  - Cutoff around 2.6-2.8, also correlating with clinical features and TBE
- Mano normal IRP, absent contractility
Achalasia
### Syndrome

<table>
<thead>
<tr>
<th>Syndrome</th>
<th>Preferred tx</th>
<th>Rationale</th>
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| Type I achalasia| PD, LHM, POEM| - All are efficacious
- Expect more reflux after POEM, especially with hiatal hernia
- Extending the myotomy (LHM or POEM) proximal to the LES is probably unnecessary and can lead to diverticulum formation at the myotomy site |
| Type II achalasia| PD           | - PD, LHM, POEM are all highly efficacious; PD has the least morbidity and cost
- Anticipate repeat dilations over the years
- Extending the myotomy (LHM or POEM) proximal to the LES is probably unnecessary and can lead to diverticulum formation at the myotomy site |
| Type III achalasia| POEM         | - Calibrate the length of myotomy to the spastic segment as imaged on HRM |

Follow Up:

• Completed POEM, doing well
• Did have breakthrough acid reflux, started on omeprazole 40 mg poqd
• Full workup within 6-12 months
• Q 3 years after that (do not need to do manometry)
Case #2

63 yo M with PMH of obesity, remote smoking, HLD, HTN and long-standing GERD. Currently on omeprazole 20 mg that PCP placed him on 6 weeks ago. He still reports breakthrough sx with trigger foods. Reports he ate antacids for many years prior to starting PPI. Main complaint is dysphagia to meats and breads, but reports that it is worsening to soft foods as well. Liquids are still ok, and he has been supplementing with boost. 12 lb weight loss.
Esophageal Cancer

- Eighth most-common CA worldwide
- Sixth most common cause of death worldwide
- 18,440 cases will be dx in US each year
- Highly lethal
  - 16,170 deaths from disease
Esophageal Malignant Tumors

- **Squamous cell**
  - Was predominant form of tumor in most of 20th century
  - Accounting for 90% of tumors
  - Still the most predominant worldwide

- **Adenocarcinoma**
  - Increasing in prevalence in Western countries
  - Now > 60% of tumors in US
  - Predominantly in distal esophagus and EGJ
Most Common RF

- Squamous cell
  - Male gender (2.5:1)
    - In low-instance areas
  - AA ethnicity (4:1)
  - Middle esophagus
  - Smoking
  - Alcohol

- Adenocarcinoma
  - Male gender (2.5:1)
  - Caucasian ethnicity (4:1)
  - Distal esophagus
  - GERD/Barrett’s esophagus
  - Obesity
  - Smoking
EGD Results:

- Stricture found and dilated to 42 F
- Irregular z-line bx
- Multiple bx
  - 98% accuracy in diagnosing malignancy with 7 + bx
Results of EGD

Path Results:

- Barrett’s esophagus, negative for dysplasia
- No Helicobacter organisms found
Barrett’s Esophagus

- Metaplastic columnar column replaces stratified squamous epithelium
  - Has both gastric and intestinal features
Plan

• Omeprazole 40 mg poqd chronically
• Serial balloon or bougie dilation up to 18 mm
• EGD surveillance after one year
• If no dysplasia, EGD surveillance q 3 years
Conclusion

- An ounce of prevention is worth a pound of cure
  - Acid suppression in high-risk patients
  - Stressing smoking cessation
  - Screening for BE
  - Early detection is key
Case #3

- 33 yo M with PMH of asthma and seasonal allergies is at a Cubs game. Since they recently traded their three-star players, they are losing. He takes a large bite of his hot dog in frustration, and it sticks in his chest. He starts to feel SOB and panic. He tries to take a sip of beer (his 3rd) and it does not push the food down. He tried to throw it up, but it would not budge. He jumps into an ambulance and drives up Lake Shore Drive to Northwestern Medicine.
Testing

• EGD revealed:
  – Hot dog pushed into stomach
  – Stricture at 13 mm
  – Unable to dilate
  2/2 inflammation
  – EREFS 13011
Endoscopic Reference Score – EREFS

Major Criteria

**Edema** (loss vascular markings)
- Grade 0: Distinct vascularity
- Grade 1: Decreased
- Grade 2: Absent

**Rings** (trachealization)
- Grade 0: None
- Grade 1: Mild (ridges)
- Grade 2: Moderate (distinct rings)
- Grade 3: Severe (not pass scope)

**Exudate** (white plaques)
- Grade 0: None
- Grade 1: Mild (<10% surface area)
- Grade 2: Severe (10% surface area)

**Furrows** (vertical lines)
- Grade 0: None
- Grade 1: Mild
- Grade 2: Severe (depth)

**Stricture**
- Grade 0: Absent
- Grade 1: Present
Pathology

> 60 eos per hpf distally
> 20 eos per hpf proximally
Severity

- Active disease is measured by number of eosinophils
  - > 15 per hpf

- Severity is based on stricture
Treatment Options

- Start with PPI
- If ineffective:
  - Steroid
  - SFED
- Serial dilations to 18 mm once inflammation is under control
Plan

• Attempted to use omeprazole 40 poqd, but it was ineffective
• Started on fluticasone 500 mcg powder BID, histologically effective
• Serial dilations to 18 mm once inflammation is under control
• The Cubs will rebuild!