21st Century Gastroenterology: What's real and what's not

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Learning objectives

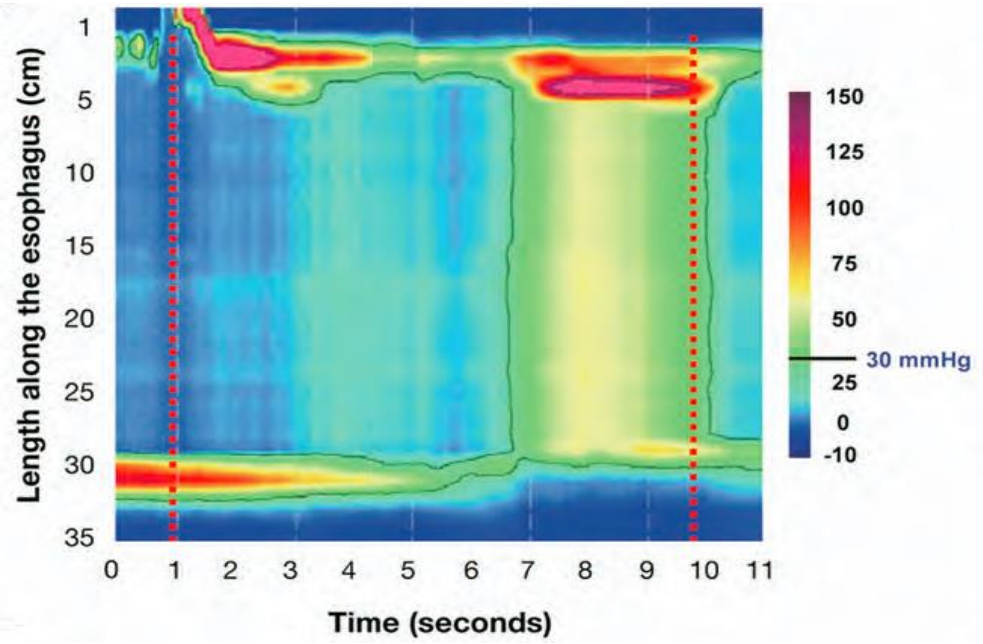
- Identify truisms and current knowledge regarding common gastroenterological (GI) disorders.
- Dispel misconceptions regarding said disorders.
- Integrate current standards of care, practice guidelines, available expertise, and patient preferences…

…in order to help provide evidence-based, patient-centered, clinical recommendations and interventions.

5 main topics

- Dysphagia
- Gastroesophageal reflux disease (GERD)
- Gastritis
- Gallstone disease
- Diverticular disease

Dysphagia


Length along the esophagus (cm)
1
5
10
15
20
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35
0 1 2 3 4 5 6 7 8 9 10 11
Time (seconds)
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125
100
75
50
30 mmHg
25
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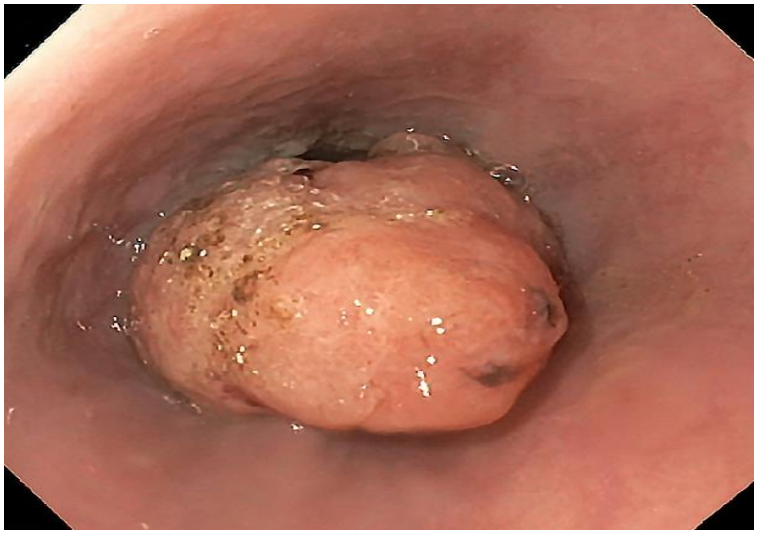
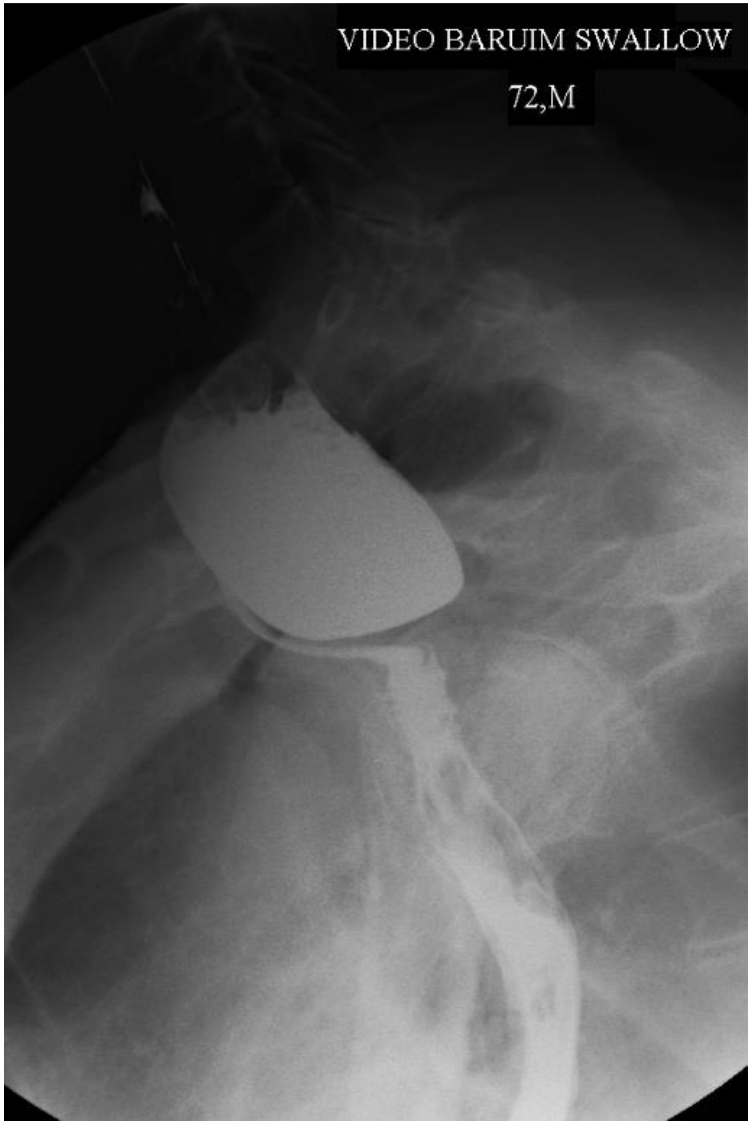



VIDEO BARUIM SWALLOW
72,M

Dysphagia

What is real:

- Dysphagia refers very broadly to difficulty swallowing and can be of 2 main types:
  - Oropharyngeal (i.e. transfer) dysphagia
  - Esophageal dysphagia
- It is an alarm symptom that warrants evaluation to delineate cause and care.
  - Dysphagia can be a manifestation of malignant, paraneoplastic, neurologic, autoimmune, esophageal motility, inflammatory, or infectious disorder.
  - Initial workup (i.e. choice of tests) depends on suspected type of dysphagia, based on symptoms and clinical scenario.

Pasha SF et al. Gastrointest Endosc. 2014 Feb;79(2):191-201.

Dysphagia

What is myth, incorrect, and/or obsolescent:

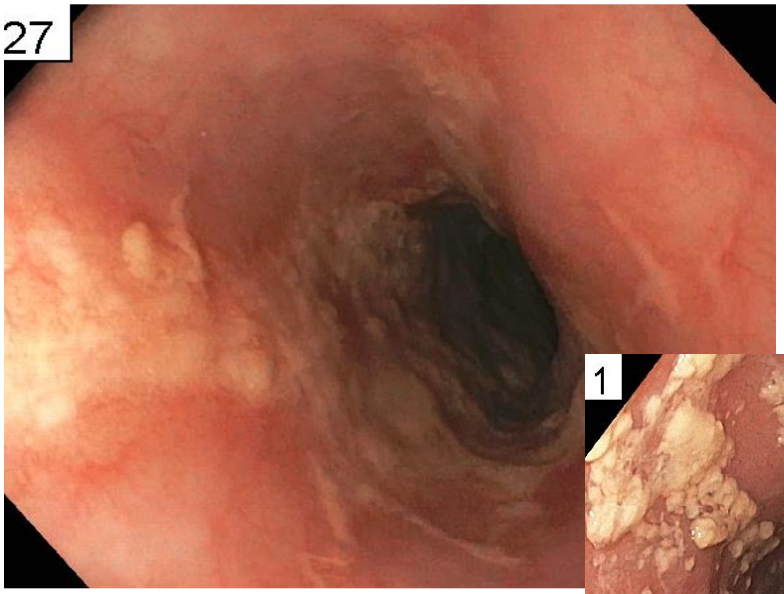
- Dysphagia is part of the aging process ***x***
  - False: a workup is indicated regardless of age (you want find that for which you don't search).
- Barium esophagram is the gold standard ***x***
  - Not anymore: it is one of many tests to evaluate dysphagia.
- Dysphagia should be treated with PPI ***x***
  - Perhaps: in some cases, yes. If used empirically and all symptoms resolve, great; if not, continue workup.
    - Note: PPI not indicated if dysphagia is oropharyngeal.
- My patient's dysphagia is due to globus ***x***
  - Maybe: but globus is a diagnosis of exclusion.

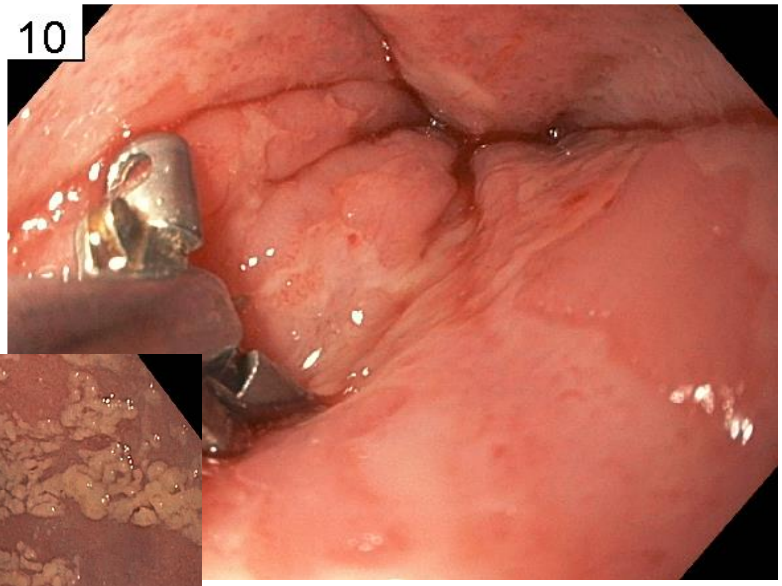
Dysphagia

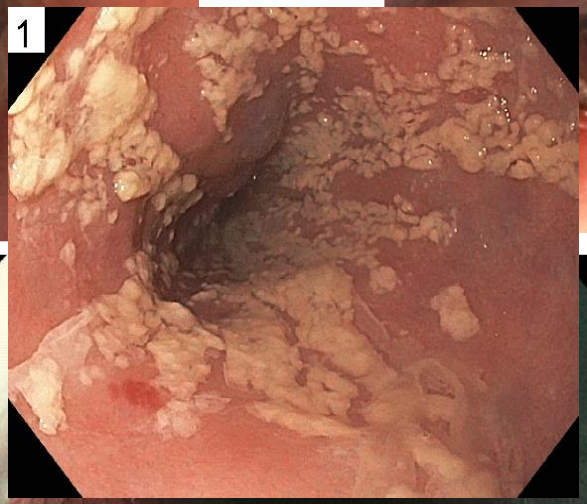
Practical pearls

- Approach workup based on the suspected type (oropharyngeal vs. esophageal) of dysphagia.
- Diagnostic options are numerous:
  - Video fluoroscopic swallow study, barium esophagram, upper endoscopy, esophageal manometry, CT chest, upper endoscopic ultrasound.
- In many cases, one modality is not sufficient.
- If in doubt, consult:
  - Speech Therapy, ENT, or Neurology for oropharyngeal dysphagia.
  - GI for esophageal dysphagia.

GERD







GERD

What is real:

- GERD develops when reflux of gastric contents causes symptoms or complications.
- Incidence and prevalence of GERD are rising
  - Now ≈50 million individuals in US (10-20%) have it.
- GERD/reflux-related disorders are 2nd leading GI diagnoses (530.11, 530.81) in outpatient visits.
- GERD associated with obesity, alcohol intake, smoking, age, and hiatal hernia.

Katz PO et al. Am J Gastroenterol. 2013 Mar;108(3):308-28.

GERD

What is myth, incorrect, and/or obsolescent:

- Patients with GERD need a PPI ***x***
  - Sometimes: many patients do not. Choice of medication should be tailored to the frequency and severity of symptoms.
- All patients with GERD should have an upper endoscopy ***x***
  - False: patients with typical and/or uncomplicated GERD do not need (up front) endoscopic evaluation.
- Esophagitis is the same thing as GERD ***x***
  - No: GERD is a leading cause of esophagitis. Other notable causes are infectious (fungal, viral), eosinophilic, and caustic.
- "Barrett's esophagitis" ***x***
  - Misnomer: Barrett's *esophagus*, also known as intestinal metaplasia of the esophagus. Only a fraction of GERD patients have Barrett's, and many patients with Barrett's have no symptoms.

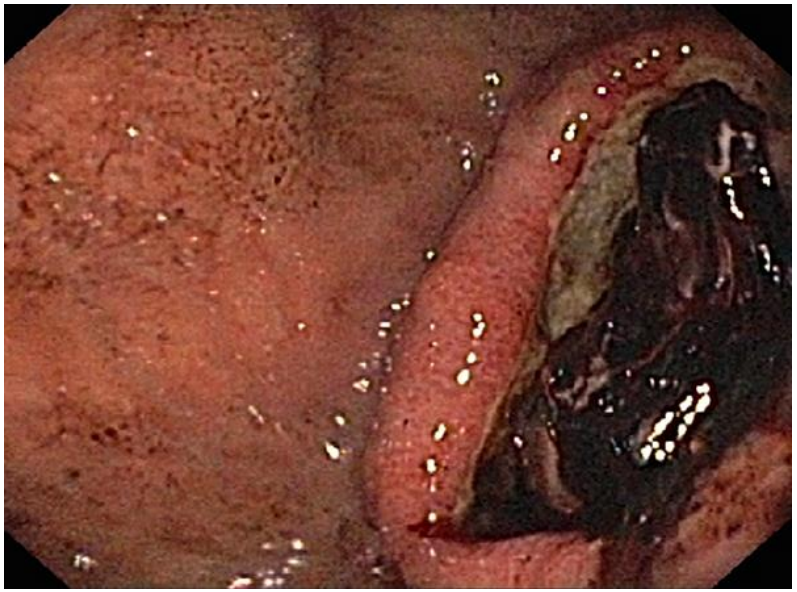
Dellon ES et al. Am J Gastroenterol. 2013 May;108(5):679-92
Shaheen NJ et al. Am J Gastroenterol. 2016 Jan;111(1):30-50.
Kahrilas PJ et al. Gastroenterology. 2008 Oct;135(4):1383-1391

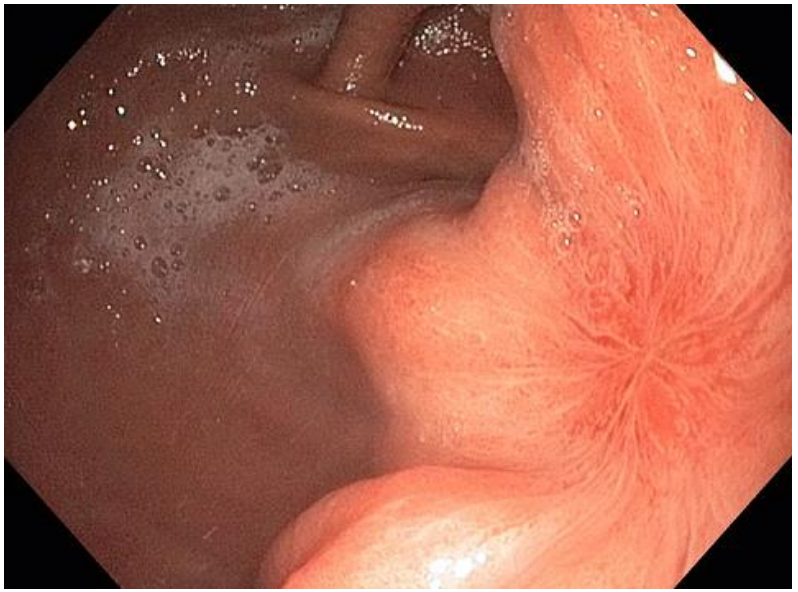
GERD

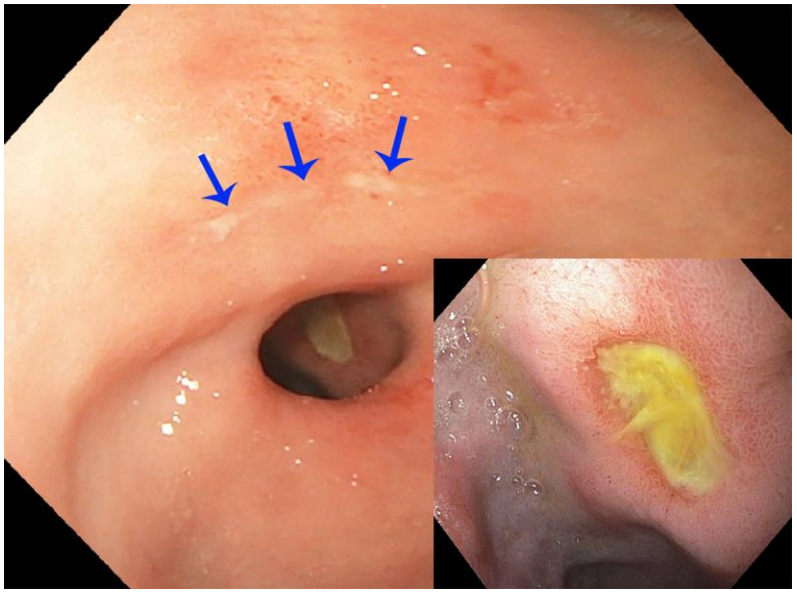
Practical pearls

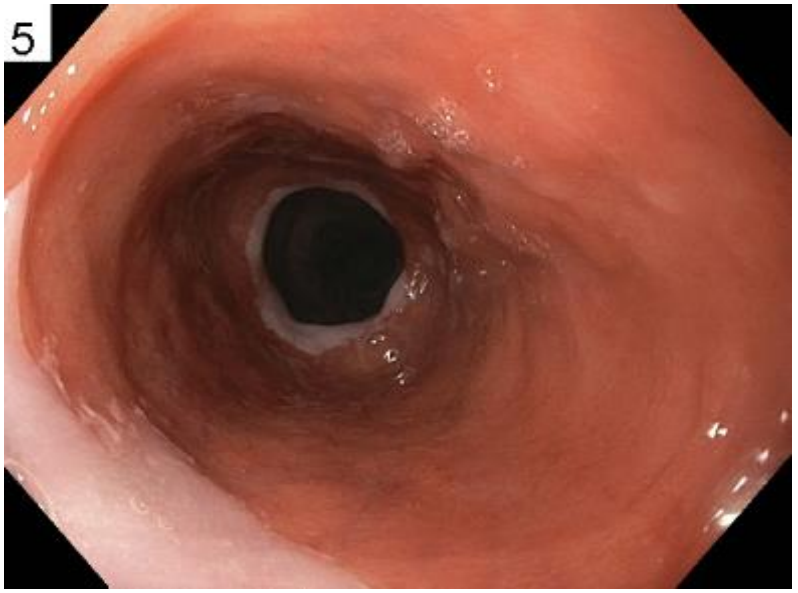
- Recognize that some patients have only mild or infrequent (<3x/week) symptoms
  - Try dietary changes and/or H2 blocker first.
- Other end of the spectrum are patients with “red flag” signs of complicated disease:
  - Dysphagia, unintentional weight loss, vomiting, hematemesis, risk factors for Barrett’s esophagus.
    - White, male, obese, smoker, years of GERD symptoms.
  - In these patients, upper endoscopy is advisable.
- If GERD symptoms are not improving despite seemingly appropriate therapy, further workup may be needed.

Gastritis









Gastritis

What is real:

- Among GI disorders, 7th most common principal diagnosis from ED visits (600,000/year), 10th most common of outpatient visits (2 million/year).
- Most common causes are *H. pylori* infection and NSAID medications (e.g. ibuprofen, naproxen).
  - Other (contributing) factors/causes are smoking, alcohol, immune-mediated disorders (e.g. eosinophilic gastroenteritis, Crohn's disease, autoimmune), viral infection, chemotherapy.
- "Stress" in and of itself not believed to cause clinically significant gastritis or ulcers.
  - However, it can synergize with the above factors/causes.

Peery AF et al. Gastroenterology. 2015 Dec;149(7):1731-1741.
Chey WD et al. Am J Gastroenterol. 2017 Feb;112(2):212-239.
Evans JA et al. Gastrointest Endosc. 2015 Jul;82(1):1-8.

Gastritis

What is myth, incorrect, and/or obsolescent:

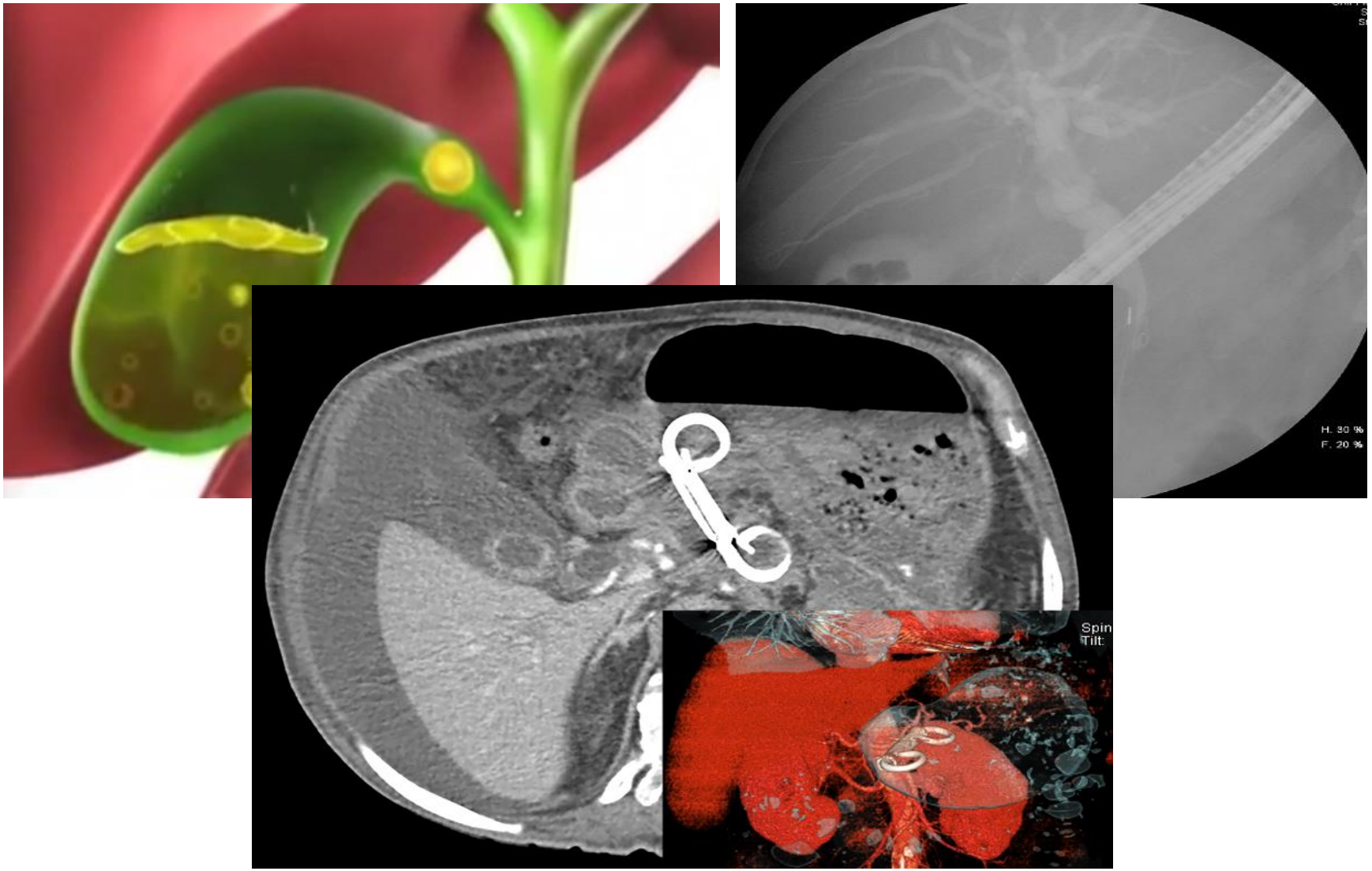
- The diagnosis of gastritis is made based on symptoms ***x***
  - False: gastritis is a histopathologic diagnosis. Though a patient may have symptoms typical of gastritis, many mimics or secondary causes exist.
    - Gastric cancer, duodenal ulcer, cholecystitis, pancreatic cancer, celiac disease, Crohn's disease, lymphoma, gastroparesis, giardiasis, CVM, sarcoidosis.
- My patient needs upper endoscopy to rule out *H. pylori* infection ***x***
  - Sometimes: *H. pylori* infection diagnosed by serology (least $), stool antigen (2nd least $), urea breath test, and upper endoscopy.
    - The latter two are comparable in cost and amount of time needed.
    - *H. pylori* serology should not be used in patients previously treated for *H.p*.
- PPIs are the treatment for gastritis ***x***
  - It depends: should be based on the etiology of the process.
    - H. pylori-related gastritis requires triple therapy (with antibiotic)

Gastritis

Practical pearls

- Though gastritis can be acute or chronic, chronic is more common, and is most often caused by *H. pylori*.
  - In the absence of red flag signs, perform noninvasive tests to rule out *H. pylori* infection, and treat if positive.
- In patients with "red flag", upper endoscopy should be ordered to not only rule out H. pylori, but also other (and more sinister) processes.
  - Some of these processes may not be detected (in early stages) on CT.
- Most patients don't need chronic PPI therapy for "gastritis" (as opposed to GERD).
  - Consider tapering (to the lowest effective dose) or d/c PPI.

Gallstone disease



Tabibian JH et al. Clin Gastroenterol Hepatol. 2017 Dec;15(12):A31-A32

Gallstone disease

What is real:

- Gallstone disease is the 2nd most common principal diagnosis from all GI, liver, and pancreas-related hospital admissions in the U.S.
  - Encompasses a broad variety of specific disorders
    - Cholelithiasis, cholecystitis, choledocholithiasis, acute cholangitis.
- Acuity, severity, and nature of "gallstone disease" symptoms vary based on size and location of stone(s).
  - Also, gallstone disease symptoms may be indistinguishable from duodenal ulcer and other regional disorders.
- If cholecystectomy indicated, laparoscopic is preferable.

Peery AF et al. Gastroenterology. 2015 Dec;149(7):1731-1741.

Gallstone disease

What is myth, incorrect, and/or obsolescent:

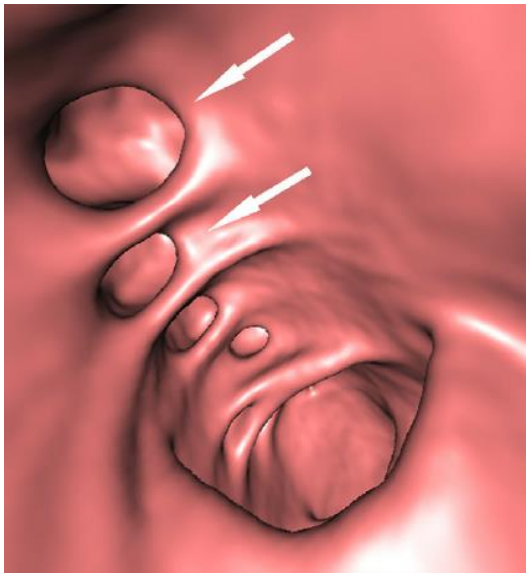
- We checked blood tests, patient has cholecystitis ✗
  - Misconception: cholecystitis is not a biochemical diagnosis.
    - Typical RUQ pain + leukocytosis + imaging findings of GB wall thickening and pericholecystic fluid (+ Murphy's sign).
- Liver function tests are up, patient has cholelithiasis ✗
  - Unlikely: Cholelithiasis usually does not have a significant impact on "liver function tests (LFTs)".
    - Serum liver tests affected when stone migrates into CBD or in Mirizzi syndrome.
    - Liver enzymes (e.g. AST, ALT, ALP) are not "LFTs".
- Gallstones on ultrasound are an indication for cholecystectomy ✗
  - False: asymptomatic, incidental stones better left undisturbed.

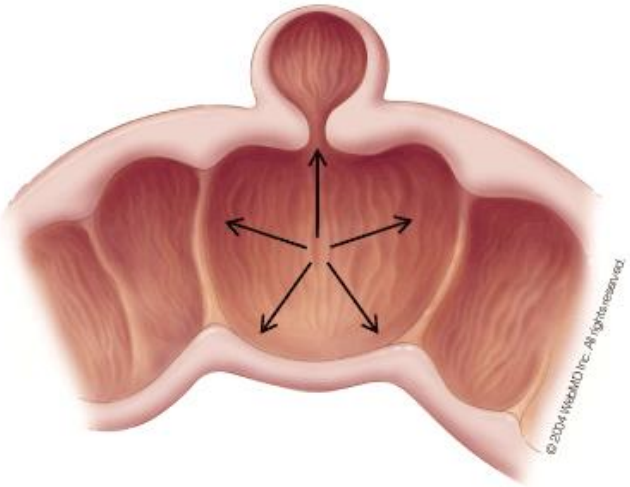
Gallstone disease

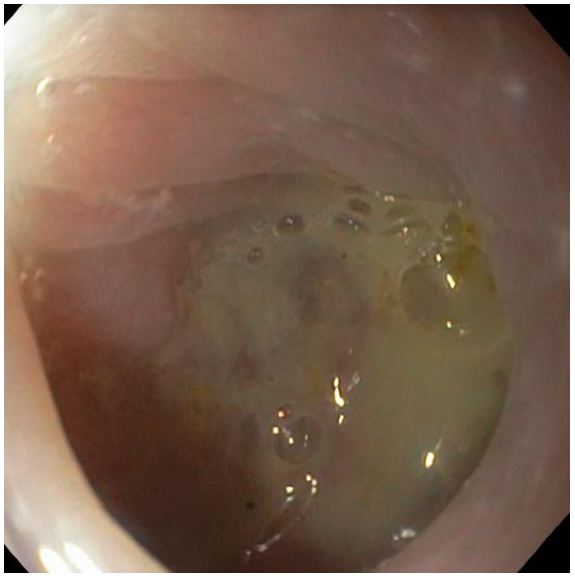
Practical pearls

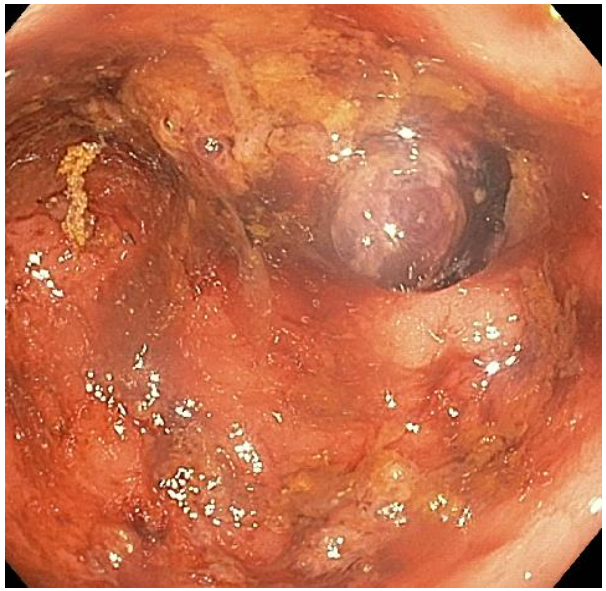
- Though gastritis can be acute or chronic, chronic is more common, and is most often caused by *H. pylori*.
  - In the absence of red flag signs, perform noninvasive tests to rule out *H. pylori* infection, and treat if positive.
- In patients with “red flag”, upper endoscopy should be ordered to not only rule out H. pylori, but also other (and more sinister) processes.
  - Some of these processes may not be detected (in early stages) on CT.
- Most patients don’t need chronic PPI therapy for “gastritis” (as opposed to GERD).
  - Consider tapering (to the lowest effective dose) or d/c PPI.

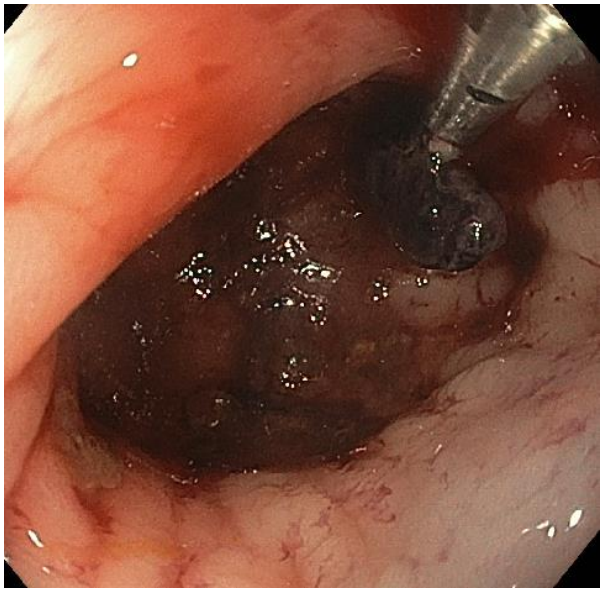
Diverticular disease

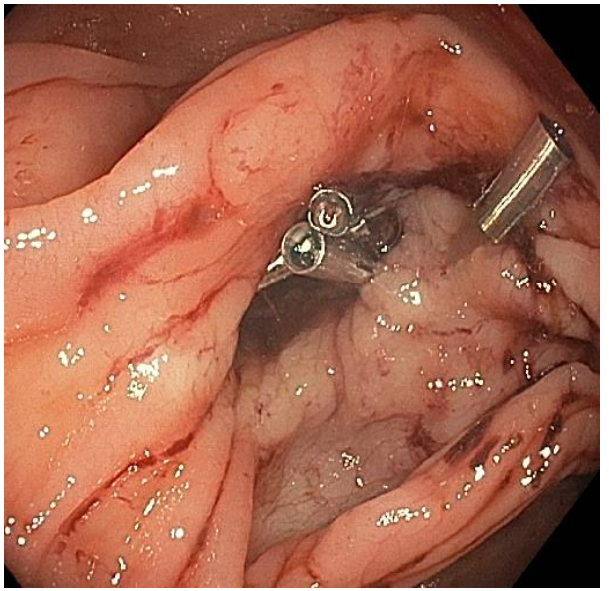








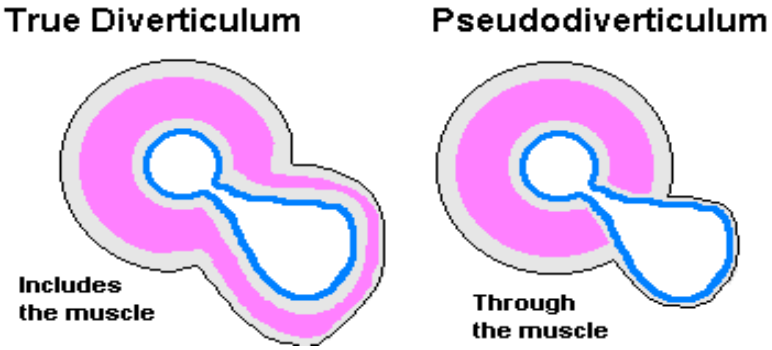




Diverticular disease

What is real:

- Diverticulum=outpouching of the wall of a hollow organ
  - From Latin “de-”, away from, & “vertere”, to turn
- Colonic diverticula are “pseudo”diverticula (M & SM only).
  - Typically 3-10 mm in diameter
  - Usually sigmoid portion of colon.
  - Increased prevalence with age
    - < 10% of those <40 years
    - > 50% of those >80 years



- ≈20% with diverticulosis will ultimately have sequelae.
  - Diverticular bleeding is the most common cause of overt lower GI bleeding in adults in the US.

Peery AF et al. Gastroenterology. 2015 Dec;149(7):1731-1741.

Diverticular disease

What is myth, incorrect, and/or obsolescent:

- Can't eat seeds, nuts, popcorn, etc. ***x***
  - Misconception: these have not been associated with development or complications of diverticulosis.
- Patients with hematochezia have lower GI bleeding ***x***
  - Maybe: hematochezia refers to a manifestation of bleeding, while "lower GI" refers to an anatomical source (i.e. two different categories/variables).
    - Hematochezia can be from brisk upper GI bleeding, just as bleeding from a cecal diverticulum (lower GI) can manifest with melena.
- Diverticular bleeding usually stops on its on, thus my patient does not need colonoscopy ***x***
  - Perhaps: but how about the 25% who don't stop bleeding (usually don't know real-time who will vs. won't stop bleeding).
    - How about if someone has diverticulosis as well as colon cancer?

Diverticular disease

Practical pearls

- Asymptomatic diverticulosis can be left alone.
  - In patients with diverticulosis who are also constipated, reasonable to recommend high fiber, low red meat, low fat diet and increasing physical activity.
- Diverticular disease includes diverticular bleeding and acute diverticulitis.
  - These are very different disorders, and both can be associated with significant morbidity.
    - Patients with acute diverticulitis should undergo colonoscopy 6-8 weeks after the episode if no colonoscopy in preceding 2 years.
- Patients who have complicated bouts of either form of diverticular disease may benefit from surgical resection.

Peery AF et al. Gastroenterology. 2012 Feb;142(2):266-72

Summary

- We have discussed truisms and current knowledge as well as myths and misconceptions regarding 5 common GI disorders.
  - Dysphagia
  - GERD
  - Gastritis
  - Gallstone disease
  - Diverticular disease
- The topics discussed today, together with current clinical practice guidelines, provide a helpful framework.
  - Integration with available expertise and patient preferences is essential for patient-centered care and optimal outcomes.

Questions?