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Sleeve Stenosis: Diagnosis & Management

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Disclosures

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Disclosures

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Complications of Bariatric Surgery: Sleeve Stenosis

- 205,000 primary bariatric surgeries were performed in the US in 2018 alone; 198,000 of these were sleeve gastrectomy.
- This will increase as obesity increases and given unparalleled efficacy of surgery as a long-term treatment for obesity.
Case Study

- RS 46 y/o woman with a history of sleeve gastrectomy several years ago
- Presenting Symptoms: chronic epigastric abdominal pain (post-prandial) and dysphagia
- *What are the more common post-op complications we see following this surgery?*
- *Which tests/labs should be ordered?*
Results of Tests/ Labs

- Single view UGI series of sleeve stenosis.
- 11/19/2020 Esophagram (OSH):
  1. Dilated, patulous appearance of the esophagus with significantly delayed transit of contrast.
  2. Suggestion of mucosal thickening near the GE junction without definite fixed stricture. Possibly related to underlying inflammation versus HH/post-surgical change; recommend correlation with recent endoscopy.
- 11/17/2020 OSH EGD: ESOPHAGUS:
  There was erythematous and edematous LA Class A esophagitis noted in the at the gastroesophageal junction. The mucosa of the stomach appeared normal. Hiatal hernia and gastric sleeve. The duodenal mucosa showed no abnormalities in the bulb and second portion of the duodenum. Retroflexed views revealed a small hiatal hernia. The endoscope was then slowly withdrawn and removed.

Photo courtesy of Allison Schulman, MD.
Imaging (cont.)

• 3/4/2021 OSH CT scan: “markedly distended to lower esophagus, progressive since 11/15/2020…”

• 11/17/2020 OSH EGD: ESOPHAGUS: There was erythematous and edematous LA Class A esophagitis noted in the at the gastroesophageal junction. The mucosa of the stomach appeared normal. Hiatal hernia and gastric sleeve. The duodenal mucosa showed no abnormalities in the bulb and second portion of the duodenum. Retroflexed views revealed a small hiatal hernia. The endoscope was then slowly withdrawn and removed.
Diagnosis

- Sleeve Stenosis
- Management options?

4/30/2021 EGD:

- Fluid was visualized refluxing in the middle third of the esophagus and in the lower third of the esophagus.
- Reservoir distal to GE junction with short stenosis and then a severe stenosis with angulation at the level of the incisura.
- Normal examined duodenum.
Treatment

- 6/19/2021 EGD
  - Mild stasis esophagitis.
  - Z-line regular, 40 cm from the incisors.
  - A sleeve gastrectomy was found, characterized by severe stenosis. Dilated with 20mm hydrostatic balloon and 30mm pneumatic balloon (18PSI).
  - Functional lumen imaging probe measures area performed before and after dilation.
  - Normal duodenal bulb and second portion of the duodenum.
Patient Follow-Up

- Clinic follow-up in 2 weeks with repeat procedure if improvement was incomplete
- Based on her last EGD results and ongoing symptoms of post-prandial abdominal pain, we have scheduled her for another EGD 6-8 weeks from her most recent with plans for dilation

But what if she hadn’t responded…
Sleeve Stenosis: Making the Diagnosis

- **Diagnosis:** Downstream stenosis of the stomach at the level of incisura or in the proximal stomach in a patient with prior lap band
  - Endoscopic stigmata: persistently wide, open GE junction, esophagitis, dilated upstream stomach, pooling of secretions in the proximal stomach or esophagus, rotation of the stomach at staple line, luminal compromise at the stenosis site, inability to see through to the antrum
  - Endoscopic functional lumen imaging probe measures area of stenosis
- **Incidence:** Occurs in up to 3.9% of cases
Obstructive Symptoms → EGD

- Proximal stenosis or short
  ↓
  CRE 15mm dilation
  FAILED 3x

- Long, distal stenosis
  ↓
  Pneumatic 30 mm dilation
  FAILED 3x

- Stent or surgery

Endoscopic complications include perforation, bleeding and stent migration.
Sleeve Stenosis: Differential Diagnosis

- PUD
- Achalasia
- Retained surgical material
- Gastroparesis
- More distal bowel obstruction
Sleeve Stenosis: 2\textsuperscript{nd} Line Therapies

1. Endoscopic Stent placement

2. G-POEM

3. Surgery: RYGB or seromyotomy or gastric wedge resection
Gastric Stenosis: 2\textsuperscript{nd} Line Treatment

Sleeve Stenosis: 2\textsuperscript{nd} Line Therapy

Sleeve stenosis is the most common complication following sleeve gastrectomy.

If your clinical suspicion is high, begin with endoscopic treatment. Diagnostic studies are neither sensitive nor specific.

Begin with dilation before moving toward surgical treatment.
Citations


