Gastric Diverticulum Causing Regurgitation in a 35-Year-Old Female

Sarah Blau DO, Gregory Johnston DO
Mercy St. Vincent Medical Center

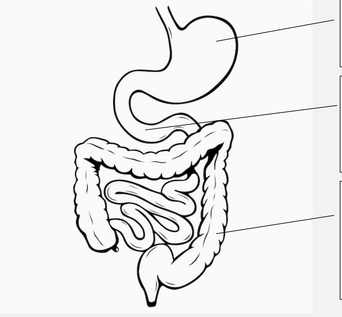
Background:

- Diagnosis of gastric diverticula can be challenging due to the sheer number and vagueness of potential symptoms.
- The majority of current research focuses on men in their six or seventh decade. This case study demonstrates that younger women without prior GI history can also be affected by gastric diverticula.

Case Presentation:

- **Initial Presentation:** 35-year-old female presented with belching of undigested food and generalized epigastric discomfort without significant medical history.
- **Diagnosis:** Upper GI demonstrated posterior gastric diverticulum, confirmed on EGD.
- **Indications for surgical treatment:** The patient was refractory to proton-pump inhibitors (PPIs).
- **Post-operative course:** Upper GI was negative for leak. Patient reported improvement in symptoms.
- **Pathology:** Gastric mucosa showed intact architecture and no active or chronic inflammation. The specimen was negative for *Helicobacter pylori.*

Incidence of GI Diverticula:



Stomach: 0.1-2.6%
Of which 75% are located in the fundus.

Small intestine: 0.1-1.5%
Of which 2-5% are located in duodenum, 0.5-2.3% in jejunum/ileum.

Colon: 10-50%
Of which 4% are located in ascending, 4% in transverse and 65% in the descending colon. 7% of these are pan-colonic.

Procedure:

- A five-port robotic assisted laparoscopic gastric diverticulectomy was performed.
- After pneumoperitoneum was established, the diverticulum was dissected out from the GE junction to posterior to the spleen.
- Two GIA staples were used to remove the diverticulum in entirety.
- An intra-operative leak test was performed using Olympus endoscope, hemostasis was confirmed along staple line
- An anchor suture with 3-0 Vicryl was used to prevent torsion of the stomach superiorly.
- A 19-french Blake drain was placed posterior to the stomach and along the staple line prior to withdrawal of the resected diverticulum.

Discussion:

- Gastric diverticula are rare with 0.1-2.6% incidence.
- Symptoms can include: nausea, vomiting, abdominal pain, postprandial fullness, anorexia, dyspepsia and food regurgitation.
- Narrow diverticular necks (<4 cm) can cause food retention and obstruction leading to diverticulitis, hemorrhage, and perforation.
- Diagnosis of gastric diverticula can be established by EGD, upper gastrointestinal contrast study or Computerized Tomographic scan.
- Differential diagnosis: paraesophageal hernia, hiatal hernia, left adrenal mass.
- Initial treatment includes medical management with PPIs; refractory patients are candidates for surgical resection.
- Surgical options: Diverticulectomy, sleeve gastrectomy

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Images:

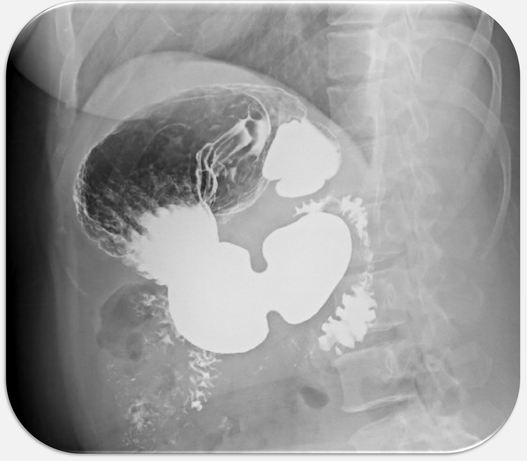


Figure 1: Pre-op Upper GI demonstrating diverticulum seen in the posterior fundus.

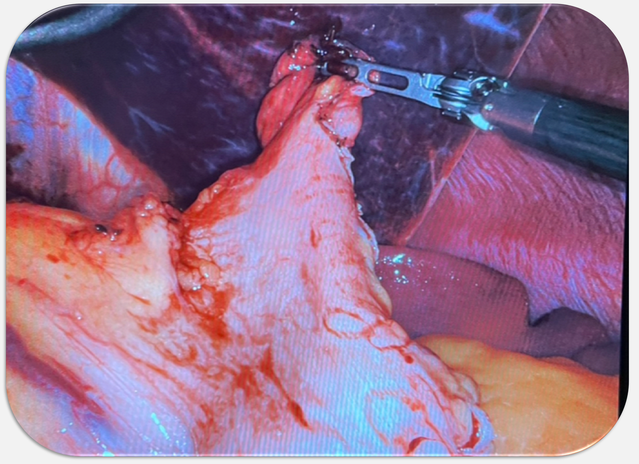


Figure 2: Intra-operative picture of gastric diverticulum.

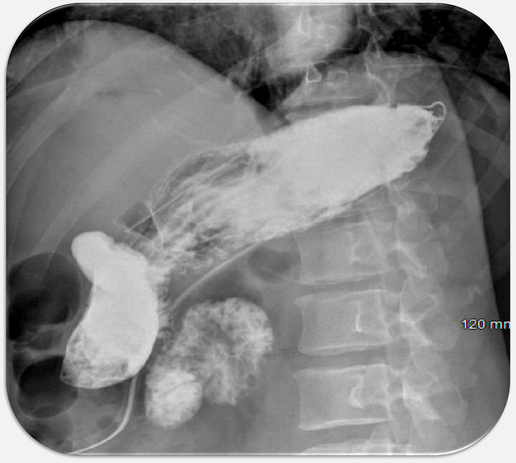


Figure 3: Post-op upper GI demonstrating absence of diverticulum.