

Intrathoracic Herniation of Proximal Stomach Leading to Esophageal Ischemia and Gastric Perforation: a Post-Op Nissen Fundoplication Complication

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Introduction

- GERD is an extremely common medical diagnosis and 1 in 5 Americans are affected by it and one of the most common diagnoses in the outpatient GI setting. (3)
- Nissen fundoplication has been an effective and safe procedure for the treatment of refractory gastroesophageal reflux disease (GERD), however, post-surgical complications can arise.
- This case represents a 69-year-old female with a history of Nissen Fundoplication who presented due to dysphagia and concern for food impaction.
- Patient was found to have an ischemic distal esophagus and perforated gastric mucosa, severe and rare complications of laparoscopic fundoplication, requiring emergent surgical intervention.

Case Report

- 69-year-old female with a history of refractory GERD who had a Nissen fundoplication performed seven months prior presented to the ER with dysphagia and concern for food impaction.
- Reported eating pork the night prior when she felt as if a piece became stuck in her lower chest after swallowing. Following patient experienced an inability to swallow any liquids or solids without regurgitation.
- In the ED patient was requiring 6L oxygen but remainder of vital signs and laboratory testing including CBC, chemistries, and lactic acid were unremarkable.
- She underwent urgent esophagogastrosocopy, showing a small gastric pouch with retained contents. There was difficulty insufflating the stomach, with friable gastric mucosa and spontaneous bleeding.
- Computed tomography (CT) was obtained which showed a large paraesophageal hernia with concern for a gastric volvulus and free fluid surrounding the intrathoracic stomach.
- Patient as had a large hemothorax requiring large bore chest tube placement.
- The patient ultimately went to the operating room with the general and thoracic surgery teams where it was discovered that a large portion of the patient's stomach had herniated through her fundoplication wrap.
- Release of the fundoplication and resection of the ischemic distal esophagus and proximal stomach were performed. Patient was left in discontinuity and transferred to the ICU.
- The patient required transfer to a tertiary care center for reconstruction.

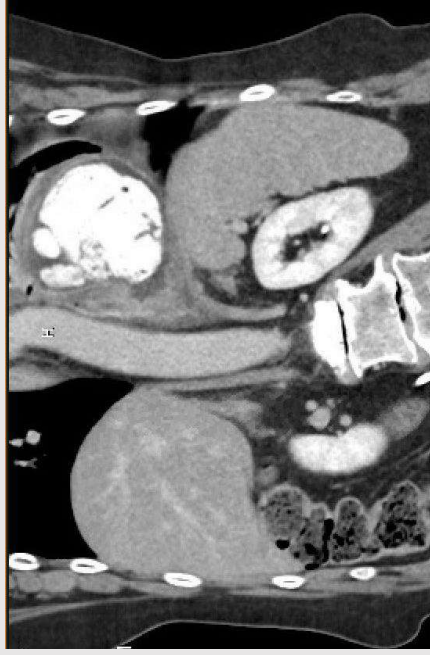


Figure 1: CT showing intrathoracic stomach with concern for volvulus as well as a moderate hemothorax.



Figure 2: Endoscopic appearance with abnormal gastric anatomy with friable mucosa and concerns for slipped fundoplication vs gastric volvulus vs other

Discussion

- Current guidelines recommend pH monitoring, EGD, and esophageal manometry prior to anti-reflux surgery. (3)
- The patient's initial high-resolution manometry had findings concerning for possible achalasia. She was re-evaluated at a tertiary center with a negative dysmotility work up, deeming her a surgical candidate.
- Failures of surgery usually occur within two years after operation. The majority of complications are due to breakdown in the structural integrity of the wrap. (1,3)
- Complications typically fall into 5 patterns: herniation of the fundoplication into the chest, slipped fundoplication, tight fundoplication, paraesophageal hernia, and malposition of the fundoplication.(1)
- Late gastric perforation is a rare complication with sparse literature.
- Careful review of preoperative studies are key to prevent drastic outcomes
- Endoscopists should keep this in mind with atypical presentations of food impaction in an emergency setting.

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