Repair of Perforated Peptic Ulcers within Paraesophageal Hernias

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Introduction

- Paraesophageal hernias involve the herniation of the stomach and potentially other intra-abdominal organs through the esophageal hiatus
- Large hiatal hernias carry the risk of significant complications such as volvulus, gastric outlet obstruction, or strangulation of intra-abdominal organs
- Here, we present two unique cases of massive paraesophageal hernias complicated by perforated peptic ulcers

Case One

Patient presentation

- This 89-year-old female with a history of myasthenia gravis presented with nausea, belching, and abdominal pain for two weeks. CT imaging was concerning for a perforated peptic ulcer within a large paraesophageal hernia

Operative Intervention

- She underwent a laparoscopic paraesophageal hernia repair followed by an open Graham patch repair due to the ulcer's posterior location

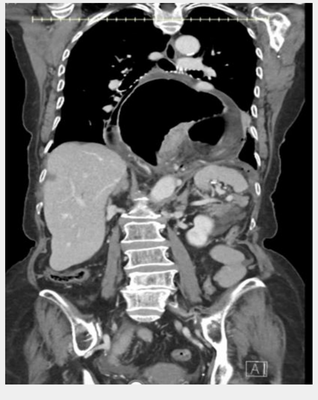
Postoperative Course

- Her hospital course was complicated by a myasthenia crisis requiring re-intubation along with a prolonged stay in the intensive care unit
- An upper GI series was performed postoperatively and was negative for a leak
- Ultimately, she was discharged on postoperative day 18 and progressed well

Case Two

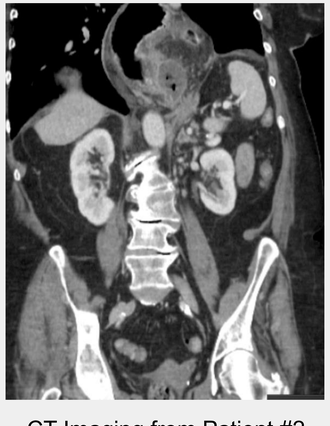
Patient Presentation

- This 75-year-old female with a history of hypertension, chronic lymphocytic leukemia, tobacco use, and recent NSAID use presented with several weeks of abdominal pain and vomiting

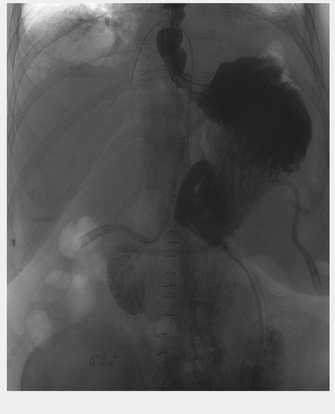


CT Imaging from Patient #1

Upper GI from Patient #2



CT Imaging from Patient #2



Upper GI from Patient #2

- CT imaging was concerning of a perforated peptic ulcer with associated abscess within a large paraesophageal hernia

Operative Intervention

- She underwent a laparoscopic paraesophagel hernia repair followed by an open Graham patch repair of a pre-pyloric ulcer in the lesser sac

Postoperative Course

- Her hospital course was complicated by a partial gastric outlet obstruction secondary to postoperative edema at the ulcer repair site requiring nasojejunal tube feeds upon discharge on postoperative day 12
- She required drainage of an intra-abdominal abscess with interventional radiology
- Oral diet was able to be advanced in the outpatient setting and she recovered well

Discussion

- Perforated peptic ulcers within paraesophageal hernias are a rare and life-threatening cause of an acute abdomen
- Both patients underwent formal laparoscopic hernia repairs with complete mediastinal mobilization, reduction of the hernia with crural closure followed by an open graham patch repair of the ulcer due to difficult to access locations

Conclusion

- These two unique cases were managed within months of each other at a single institution and highlight a rare cause of an acute abdomen that carries significant morbidity and mortality due to concern for not only peritonitis and abscess formation, but also mediastinitis
- An MIS approach to paraesophageal hernia repair is safe and feasible even in an acutely inflamed and infected field.