

Central Tendon Diaphragmatic Hernia: Surgical Management of a Paraesophageal Look-Alike

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Introduction

- Diaphragmatic hernias located near but distinct from the esophageal hiatus are rare and often misidentified as paraesophageal hernias.
- CT is often (but not always) capable of clarifying the location of the diaphragmatic defect.
- Localization of the defect is important for preoperative diagnosis and operative planning.

Case Presentation

- A 67-year-old female was referred for evaluation of a large paraesophageal hernia detected on chest radiograph during a cough workup at an outside facility.
- Symptoms include intermittent heartburn, postprandial upper abdominal pain, bloating, and rare regurgitation.
- Outside **CT** suggested a large paraesophageal hernia with possible paraduodenal component. **Esophagram** demonstrated normal motility, mild gastroesophageal reflux, and intrathoracic position of the gastric body, pylorus, and proximal duodenum. **EGD** revealed a large type IV paraesophageal hernia with mild chronic gastritis.

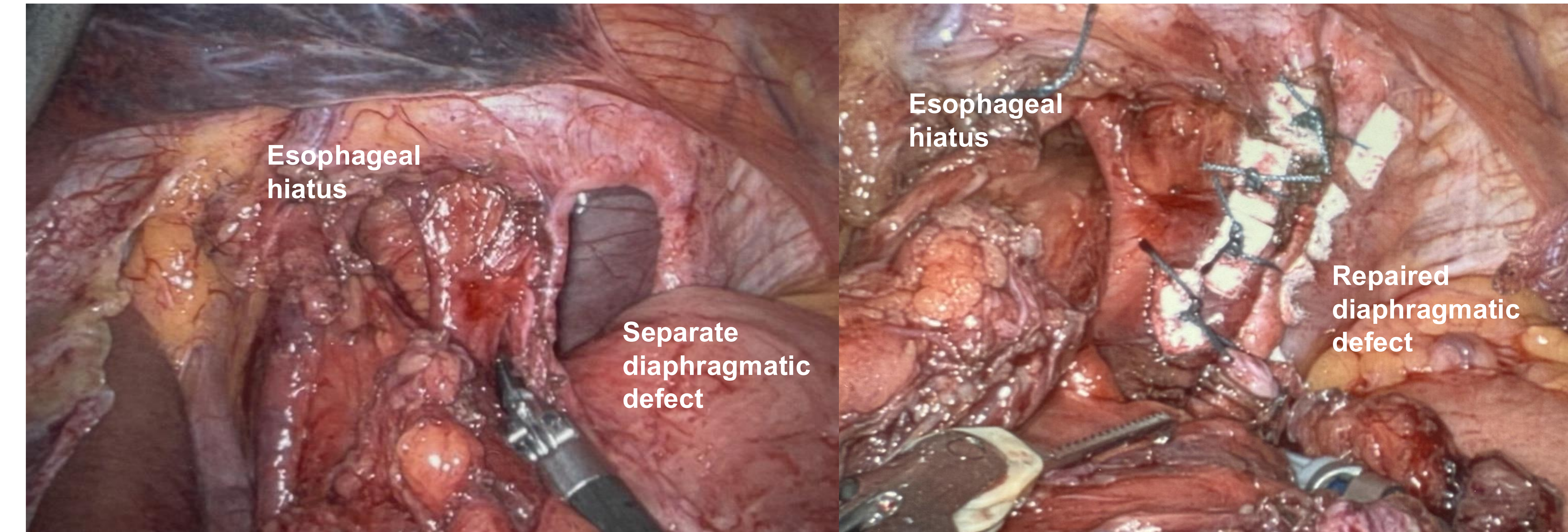


Figure 2: Intraoperative Photographs Pre- (A) and Post- (B) Repair

Operation and Postoperative Course

- Robotic paraesophageal hernia repair was planned. Intraoperatively, a defect was discovered in the central tendon of the diaphragm, separate from the esophageal hiatus, with distal stomach herniated through it.
- The hernia was reduced, the defect closed with four interrupted 0-Ethibond pledgeted sutures, and the minimal hiatal defect reinforced posteriorly with a single pledgeted suture, and anteriorly with a non-pledgeted suture. No fundoplication was performed.
- The patient was discharged on postoperative day one. At two-week follow-up she was asymptomatic, tolerating a soft diet, and recovering appropriately. Cross sectional imaging (MRCP) nearly two years later demonstrated no recurrence.

Discussion

- Central tendon defects warrant prompt operative repair to prevent complications. Minimally invasive techniques are preferred for visualization and dexterity advantages. Standard repair for small-to-moderate defects involves primary closure with nonabsorbable sutures (with or without pledgets). Mesh reinforcement may be considered for large defects or closures under tension.
- Fundoplication may not be necessary if the gastroesophageal junction anatomy is intact, and if the patient did not present with reflux symptoms.
- This case underscores the importance of considering atypical diaphragmatic defects in the differential diagnosis of presumed paraesophageal hernias with unusual presentation and/or imaging and maintaining intraoperative flexibility in surgical planning.

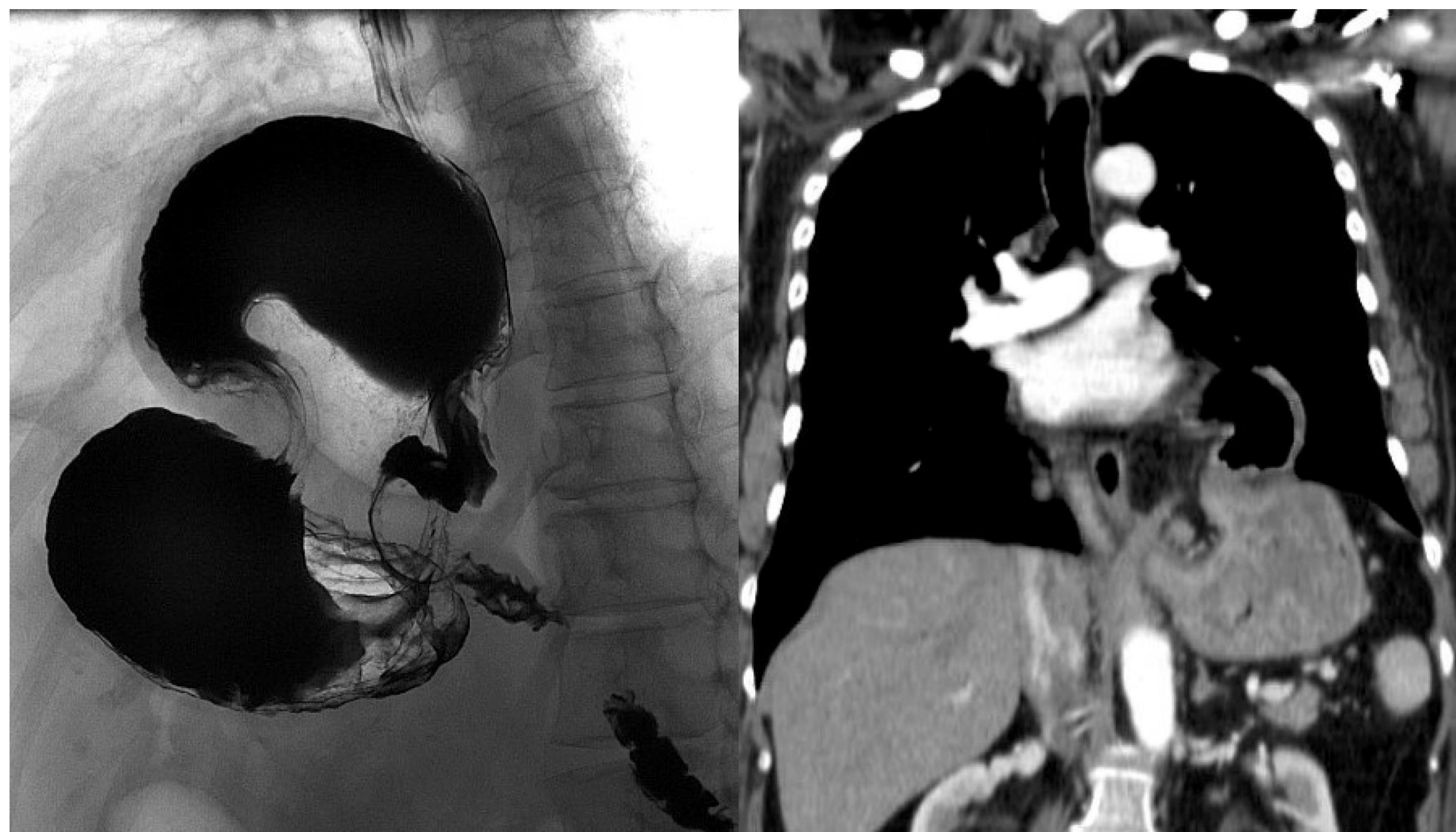


Figure 1: Preoperative Upper GI Study and CT Scan