



Case Report

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Congenital Larrey-Morgagni Hernia with Gastric Outlet Obstruction: A Rare Adult Presentation Managed with Extra Pleural Diaphragmatic Meshplasty

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Abstract

Background: Morgagni hernia is a rare congenital diaphragmatic defect, accounting for 2–4% of congenital diaphragmatic hernias. It typically presents in paediatric patients and is rarely seen in adults. Symptomatic presentation with gastric outlet obstruction is extremely uncommon.

Case Presentation: A 70-year-old female presented with intermittent upper abdominal pain, early satiety, and recurrent non-bilious vomiting. Imaging revealed a large anterior diaphragmatic defect (Larrey-Morgagni hernia) with herniation of the distal stomach, pylorus, mid-transverse colon, and greater omentum into the anterior mediastinum, resulting in gastric outlet obstruction. She underwent successful open herniotomy with extra pleural diaphragmatic meshplasty.

Conclusion: Adult presentations of Larrey-Morgagni hernia with gastric outlet obstruction are exceedingly rare. This case highlights the importance of early diagnosis and surgical repair. Open herniotomy with extra pleural mesh reinforcement is a safe and effective approach.

Keywords: Larrey-morgagni hernia; Gastric outlet obstruction; Adult diaphragmatic hernia; Extra pleural mesh repair; Anterior mediastinal hernia

Abbreviations: CDH: Congenital Diaphragmatic Hernia; CECT: Contrast-Enhanced Computed Tomography

Introduction

Congenital diaphragmatic hernias (CDH) typically manifest in paediatric patients. Among these, Morgagni hernias are the rarest subtype and account for less than 4% of all CDHs. Herniation occurs through the sternocostal triangle (foramen of Morgagni), more commonly on the right. Larrey hernias, the left-sided counterpart, are even less frequent. Adult presentation is uncommon, and when symptomatic, it may mimic gastrointestinal or cardiopulmonary disorders [1]. In rare cases, large hernias may result in mechanical obstruction or respiratory compromise, necessitating prompt surgical correction [2].

Case Report

Patient profile

A 70-year-old female presented with a 3-month history of intermittent upper abdominal pain, accompanied by 2 weeks of

early satiety and recurrent non-bilious vomiting. There was no history of prior abdominal surgeries.

Clinical examination

The patient was hemodynamically stable. Examination revealed mild epigastric tenderness and reduced air entry in the right anterior thorax. No peritonitis or bowel obstruction signs were noted [3].

Radiological findings

(Figure 1) Revealed a homogeneous opacity in the right cardio phrenic angle, obscuring the right heart border. Curvilinear lucencies within the opacity suggested bowel loops. The right hemidiaphragm was indistinct, with volume loss in the right lower lung and mild cardiac silhouette shift to the left [4].

(Figure 2) Showed a well-defined 8 × 6cm anterior diaphragmatic defect at the foramen of Morgagni with herniation of distal stomach, pylorus, mid-transverse colon, and greater omentum into the anterior mediastinum. The stomach was dilated with a fluid level, consistent with gastric outlet obstruction [5].



Figure 1: Chest X-ray (Frontal View).

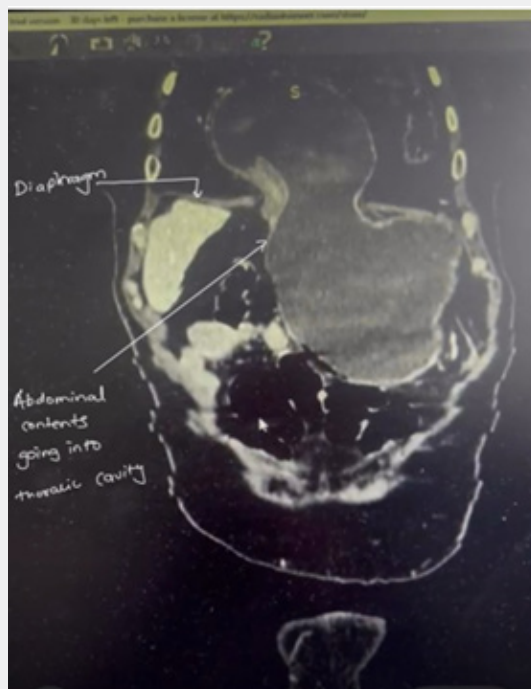


Figure 2: CECT Abdomen (Coronal View).

Surgical intervention

- a) Approach: Upper midline laparotomy
- b) Findings: Hernia defect of $\sim 8 \times 6$ cm containing stomach, colon, and omentum without ischemia.

Procedure: Gentle reduction of contents, excision of hernia sac preserving the pleura, primary repair with absorbable sutures, and reinforcement with polypropylene mesh in the extra pleural plane (Figure 3 & 4).

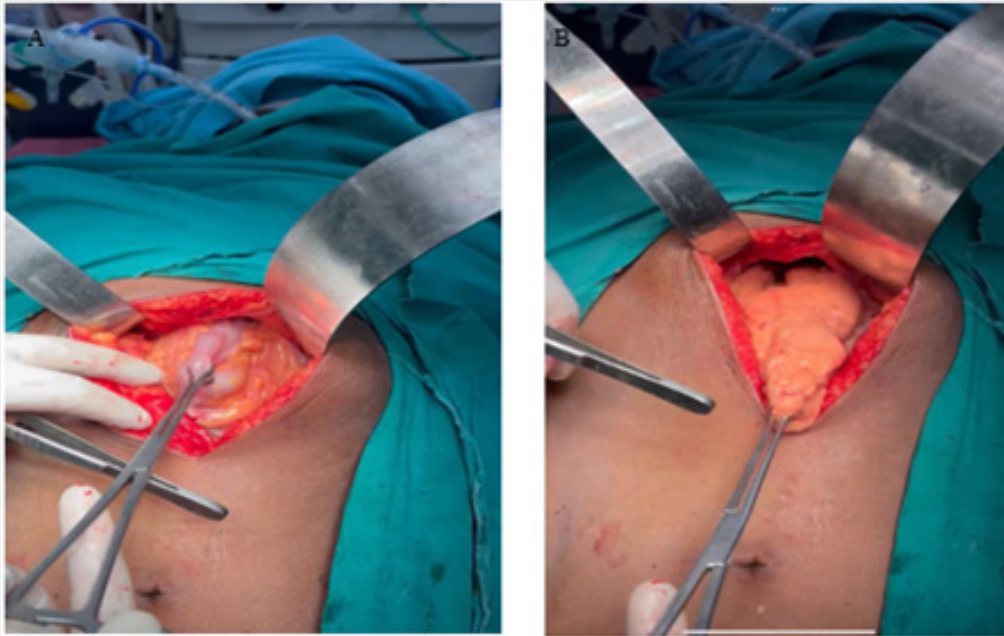


Figure 3: These images show gentle reduction of content of diaphragmatic hernia. Figure A shows Reduction of Transverse Colon. Figure B shows Reduction of Omentum.

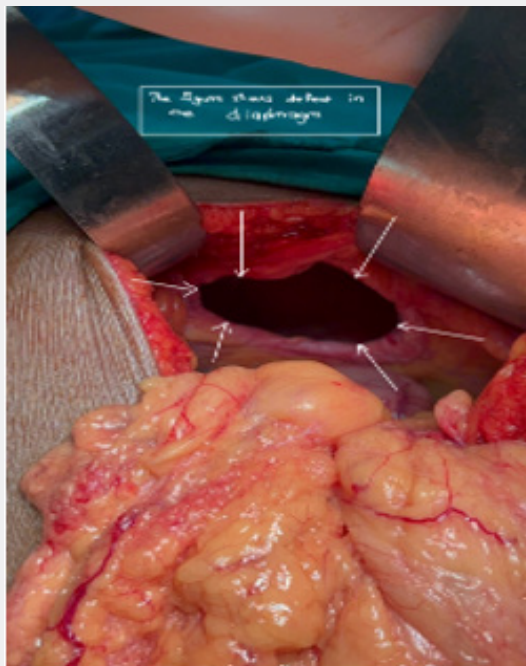


Figure 4: The figure shows defect in the diaphragm.

Postoperative course: The patient resumed oral intake on postoperative day 3, with normal bowel function by day 4. She was discharged on day 6 and remained asymptomatic at 1-month follow-up.

Results

The surgery was uneventful with no pleural breach. The extra pleural mesh repair provided secure closure without recurrence. The patient showed rapid postoperative recovery, highlighting the efficacy of this technique in elderly patients with complex hernias.

Discussion

Morgagni hernias are often discovered incidentally. However, in elderly patients, especially those with herniation of hollow viscus organs, they may present acutely with gastrointestinal symptoms. Gastric outlet obstruction due to herniated stomach and colon is particularly rare. Contrast-enhanced CT is the gold standard for diagnosing such hernias, enabling identification of contents and exclusion of strangulation. Though minimally invasive approaches are preferred in elective cases, open surgery

remains superior in large, complicated hernias. Placement of a polypropylene mesh in the extra pleural space ensures durable repair with low recurrence risk. This case adds to the limited literature documenting adult congenital diaphragmatic hernias presenting with gastric obstruction and reinforces the role of prompt surgical repair.

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