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Congenital Yet Silent For Decades: A Rare Symptomatic Morgagni Hernia In An Elderly Female

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Abstract
Background: *Morgagni hernia is a rare congenital diaphragmatic defect occurring through the foramen of Morgagni in the anterior diaphragm. Adult presentation is uncommon and is often associated with non-specific gastrointestinal or respiratory symptoms, leading to delayed diagnosis. Early surgical intervention is important to prevent complications such as obstruction, strangulation, and respiratory compromise.*
Case Presentation: *An elderly female presented with abdominal pain for one month associated with recurrent vomiting, melena, loss of appetite, and significant weight loss. She had no known comorbidities. Her past surgical history included tubectomy performed 40 years earlier and left-sided femoral hernia repair 10 years prior. Contrast-enhanced computed tomography (CECT) of the abdomen and pelvis revealed herniation of abdominal contents through an anterior diaphragmatic defect suggestive of Morgagni hernia. The patient underwent laparoscopic Morgagni hernia repair. Intraoperatively, the herniated contents were reduced, and the diaphragmatic defect was repaired using non-absorbable sutures with composite mesh reinforcement.*
Outcome: *Postoperative recovery was uneventful with significant improvement in abdominal pain, vomiting, oral intake, and appetite. Definitive surgical management successfully reduced the herniated contents and repaired the diaphragmatic defect, thereby preventing future morbidity and mortality.*
Conclusion: *Adult Morgagni hernia is a rare but important differential diagnosis in elderly patients presenting with vague gastrointestinal symptoms. CECT is valuable for accurate diagnosis, and laparoscopic repair offers safe and effective definitive management with favorable postoperative outcomes.*
Keyword: *Morgagni hernia, congenital diaphragmatic hernia, laparoscopic repair, elderly female, anterior diaphragmatic hernia.*

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I. Introduction

Morgagni hernia is a rare congenital diaphragmatic hernia caused by failure of fusion between the septum transversum and the costal arches during embryological development. The defect occurs through the foramen of Morgagni, located in the anterior parasternal region of the diaphragm, most commonly on the right side. Morgagni hernia accounts for approximately 2–5% of all congenital diaphragmatic hernias.

Although congenital in origin, many patients remain asymptomatic until adulthood. Adult presentation is uncommon and frequently associated with vague gastrointestinal or respiratory complaints, resulting in delayed diagnosis. Clinical manifestations may include abdominal pain, nausea, vomiting, intestinal obstruction, melena, respiratory distress, chronic cough, and recurrent chest infections.

Radiological imaging, particularly contrast-enhanced computed tomography (CECT), is considered the investigation of choice because it accurately demonstrates the diaphragmatic defect and herniated viscera. Surgical repair is recommended even in asymptomatic patients due to the risk of incarceration, strangulation, bowel obstruction, and cardiorespiratory complications. Laparoscopic repair has emerged as the preferred minimally invasive approach because of reduced postoperative pain, shorter hospital stay, and faster recovery.

We report a rare case of symptomatic Morgagni hernia in an elderly female who presented predominantly with gastrointestinal symptoms and was successfully managed by laparoscopic repair.

II. Case Report

An elderly female presented to the Department of General Surgery with complaints of abdominal pain for one month. The pain was insidious in onset and gradually progressive in nature. It was associated with recurrent episodes of postprandial vomiting. The patient also complained of melena, significant loss of appetite, and considerable unintentional weight loss over the preceding few weeks.

She reported progressive intolerance to oral feeds and generalized weakness. There was no history of fever, hematemesis, jaundice, altered bowel habits, or prior similar episodes.

The patient had no known comorbidities such as diabetes mellitus, hypertension, chronic respiratory disease, or ischemic heart disease.

Past surgical history included tubectomy performed 40 years earlier, left-sided femoral hernia repair performed 10 years earlier

On general examination, the patient appeared poorly nourished and mildly dehydrated. Vital signs were stable. Abdominal examination revealed mild upper abdominal tenderness without guarding or rigidity. Bowel sounds were audible. Respiratory and cardiovascular examinations were unremarkable.

Routine laboratory investigations were within acceptable limits. Contrast-enhanced computed tomography (CECT) of the abdomen and pelvis demonstrated herniation of abdominal contents through an anterior diaphragmatic defect consistent with Morgagni hernia.

Based on the clinical and radiological findings, the patient was planned for laparoscopic Morgagni hernia repair.

III. Investigations

Routine Blood Investigations

- Complete blood count
- Renal function tests
- Liver function tests
- Serum electrolytes
- Coagulation profile

Radiological Investigation

Contrast-Enhanced Computed Tomography (CECT) Abdomen and Pelvis: Findings were suggestive of Morgagni hernia with herniation of abdominal contents through an anterior diaphragmatic defect.

IV. Diagnosis

MORGAGNI HERNIA

V. Surgical Management

After adequate preoperative preparation and anaesthetic evaluation, the patient was taken up for laparoscopic Morgagni hernia repair under general anaesthesia.

Pneumoperitoneum was created using standard laparoscopic technique, and ports were positioned appropriately. Diagnostic laparoscopy revealed a 10x7cm hernial defect located in the anterior aspect of the diaphragm consistent with Morgagni hernia.

The herniated contents (small intestine loops) were carefully reduced into the abdominal cavity. No bowel ischemia or strangulation was noted intraoperatively. Adhesiolysis was performed wherever necessary. Following reduction, the diaphragmatic defect was clearly visualized and repaired laparoscopically using interrupted non-absorbable tag sutures. Composite mesh reinforcement was placed and secured using tacks. Adequate tension-free closure of the defect was achieved.

Hemostasis was confirmed, and the operative field was inspected thoroughly before port closure. No intraoperative complications occurred.

VI. Intraoperative Findings

- Hernial defect noted in the anterior diaphragm
- Findings consistent with Morgagni hernia
- Herniated abdominal contents successfully reduced
- Laparoscopic closure of diaphragmatic defect performed
- Composite mesh reinforcement placed and secured

VII. Postoperative Course

The patient tolerated the procedure well. Postoperative recovery was uneventful. Oral feeds were gradually resumed and tolerated satisfactorily. Vomiting subsided completely, and abdominal pain improved significantly. The patient also reported improvement in appetite.

Early ambulation and respiratory exercises were encouraged. No postoperative respiratory distress, wound complications, or recurrence-related symptoms were noted during the hospital stay.

The patient was discharged in stable condition with advice for regular follow-up.

At 1-month follow-up, the patient remained asymptomatic with no evidence of recurrence.

VIII. Outcome

Definitive surgical management successfully achieved:

- Reduction of herniated abdominal contents
- Closure of the diaphragmatic defect
- Prevention of future complications such as obstruction, strangulation, and respiratory compromise
- Reduction in future morbidity and mortality associated with Morgagni hernia

IX. Discussion

Morgagni Hernia is a rare congenital diaphragmatic defect resulting from failure of fusion of the septum transversum with the costal arches during embryological development. The defect occurs through the foramen of Morgagni, located in the retrosternal anterior diaphragm, and accounts for approximately 2–5% of all congenital diaphragmatic hernias. Although congenital in origin, many patients remain asymptomatic for decades and are diagnosed only incidentally or after the development of symptoms in adulthood.

Adult presentation of Morgagni hernia is uncommon because the diaphragmatic defect is often small and initially covered by the liver or omentum, preventing early herniation of abdominal viscera. Progressive weakening of diaphragmatic tissues and increased intra-abdominal pressure associated with aging, chronic cough, obesity, constipation, pregnancy, or previous surgeries may contribute to delayed symptomatic presentation in elderly individuals. The condition is reported more frequently in females and predominantly occurs on the right side because of the protective attachment of the pericardium on the left hemidiaphragm.

Clinical presentation in adults is frequently nonspecific, resulting in delayed diagnosis. Patients may present with gastrointestinal symptoms such as abdominal pain, nausea, vomiting, dyspepsia, intestinal obstruction, gastrointestinal bleeding, or weight loss. Respiratory manifestations including dyspnea, chronic cough, recurrent chest infections, and chest discomfort may also occur secondary to compression of thoracic structures by herniated abdominal contents. In the present case, the patient predominantly presented with gastrointestinal symptoms including recurrent vomiting, melena, loss of appetite, and significant weight loss, which initially posed a diagnostic challenge.

Radiological imaging plays a crucial role in diagnosis. Chest radiography may demonstrate bowel loops or air-fluid levels within the thoracic cavity; however, findings can often be inconclusive. Contrast-enhanced computed tomography (CECT) is considered the investigation of choice because it accurately delineates the diaphragmatic defect, identifies the herniated viscera, and helps differentiate Morgagni hernia from other mediastinal or pulmonary pathologies. Early diagnosis is essential because delayed management may result in serious complications such as incarceration, strangulation, bowel obstruction, perforation, or respiratory compromise.

Surgical repair is recommended for all diagnosed Morgagni hernias, including asymptomatic cases, due to the risk of future complications. Traditionally, repair was performed through laparotomy or thoracotomy. However, laparoscopic repair has increasingly become the preferred approach because of superior visualization of the defect, reduced postoperative pain, shorter hospital stay, faster recovery, improved cosmetic outcome, and lower overall morbidity. Mesh reinforcement is often recommended for larger defects to achieve tension-free closure and reduce recurrence rates.

In the present case, laparoscopic reduction of the herniated bowel loops followed by primary repair with non-absorbable sutures and composite mesh reinforcement resulted in an excellent postoperative outcome. The patient showed significant symptomatic improvement with resolution of vomiting and abdominal pain, improved oral intake, and satisfactory postoperative recovery without complications. This case highlights the importance of maintaining a high index of suspicion for Morgagni hernia in elderly patients presenting with vague gastrointestinal symptoms and demonstrates the safety and effectiveness of minimally invasive laparoscopic management.

X. Conclusion

Adult Morgagni hernia is an uncommon clinical condition that may present with vague gastrointestinal symptoms, leading to diagnostic difficulty and delayed management. A high index of suspicion along with appropriate radiological imaging is essential for accurate diagnosis. Laparoscopic repair is safe, feasible, and effective, offering excellent postoperative recovery and prevention of potentially life-threatening complications.

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Patient consent: Appropriate informed consent was obtained from the patient for surgery and publication of this case report while maintaining confidentiality.

Declaration of patient consent: The authors certify that they have obtained all appropriate patient consent forms. The patient has given consent for clinical information and images to be reported in the journal. The patient's identity has been adequately concealed.

Conflict of interest: The authors declare no conflict of interest.

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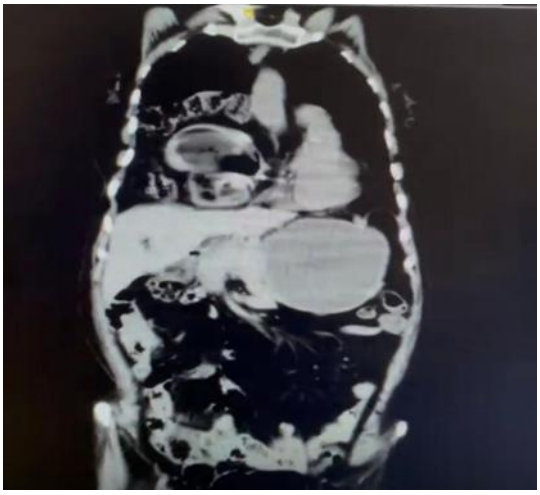

Figure 1: Coronal CECT Abdomen and Pelvis Showing Herniation of Bowel Loops Through the Anterior Diaphragmatic Defect

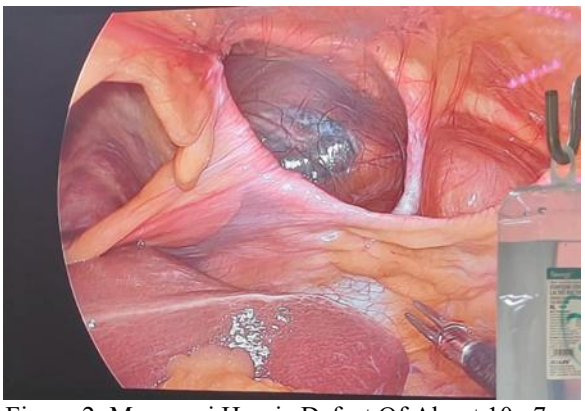

Figure 2: Morgagni Hernia Defect Of About 10x 7cm

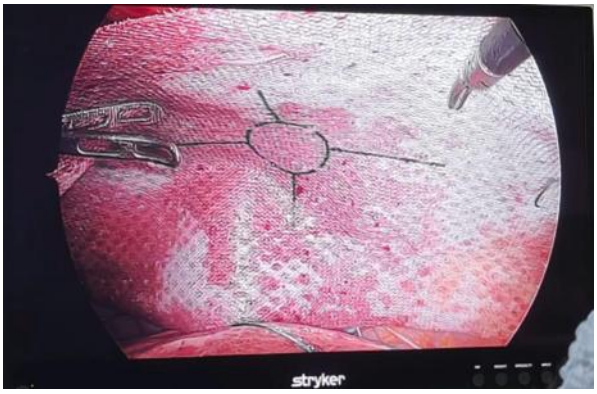

Figure 3: Mesh Placed Over Hernia Defect after repair

Figure 4: Post Chest X Ray