World Journal of Advanced Research and Reviews
eISSN: 2581-9615 CODEN (USA): WJARAI
Cross Ref DOI: 10.30574/wjarr
Journal homepage: https://wjarr.com/

(CASE REPORT)

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Morgagni Hernia in Elderly Patients: A Case Report

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World Journal of Advanced Research and Reviews, 2025, 28(01), 033-036

Publication history: Received on 21 August 2025; revised on 28 September 2025; accepted on 01 October 2025

Article DOI: https://doi.org/10.30574/wjarr.2025.28.1.3392

Abstract

Morgagni–Larrey diaphragmatic hernia is a rare condition, accounting for about 3% of all diaphragmatic hernias. It is always located anteriorly, at the sites of diaphragmatic weakness corresponding to the foramina of Morgagni (right) and Larrey (left).

Most of these hernias are asymptomatic. When symptoms occur, they are usually respiratory, but may also be digestive (heartburn, vomiting, bowel obstruction) or cardiac (atypical chest pain, tamponade).

We report the case of a 75-year-old woman, with a history of hypertension (4 years) and cholecystectomy (7 years), who presented with epigastric pain associated with mild hematemesis and dark vomitus. Thoraco-abdominal CT revealed a large Morgagni–Larrey diaphragmatic hernia containing the greater omentum and transverse colon. The patient underwent surgical repair without complications.

This case highlights the surgical indications for anterior diaphragmatic hernias, given the risk of complications such as strangulation.

Keywords: Morgagni hernia; Clinical Presentation; Complications; Hernias

1. Introduction

Morgagni hernia (MH), also known as Larrey hernia, corresponds to the protrusion of abdominal contents into the thoracic cavity through an anterior retrosternal diaphragmatic defect. This defect results from incomplete fusion between the anterolateral diaphragmatic portions and the transverse septum.

MH is a rare form of congenital diaphragmatic hernia. Unlike other types, it is usually paucisymptomatic, carries a better prognosis, and is rarely associated with complications or pulmonary hypoplasia. In childhood, diagnosis is often incidental or delayed due to nonspecific symptoms. MH can remain asymptomatic until adulthood.

Chest X-ray may suggest the diagnosis, which can be confirmed by an upper GI series or computed tomography. Because of the risk of visceral incarceration and strangulation, surgical repair is recommended as early as possible.

Postoperative prognosis is generally excellent. We report a case of MH managed in the Department of Digestive Surgery at Hassan II University Hospital in Agadir, followed by a review of the literature. [1,2,3,4].

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2. Case Report

A 75-year-old woman, known hypertensive on calcium channel blockers and with a history of cholecystectomy, presented with a 2-month history of epigastric pain, retrosternal chest pain, food-related vomiting, and two episodes of hematemesis.

On admission, physical examination revealed epigastric tenderness and decreased breath sounds in the right hemithorax. Thoraco-abdominal CT scan demonstrated an anterior Morgagni diaphragmatic hernia containing the transverse colon.

The patient underwent a midline supraumbilical laparotomy with reduction of the hernia sac contents (greater omentum and transverse colon) and primary closure of the diaphragmatic defect with sutures. Postoperative recovery was uneventful.

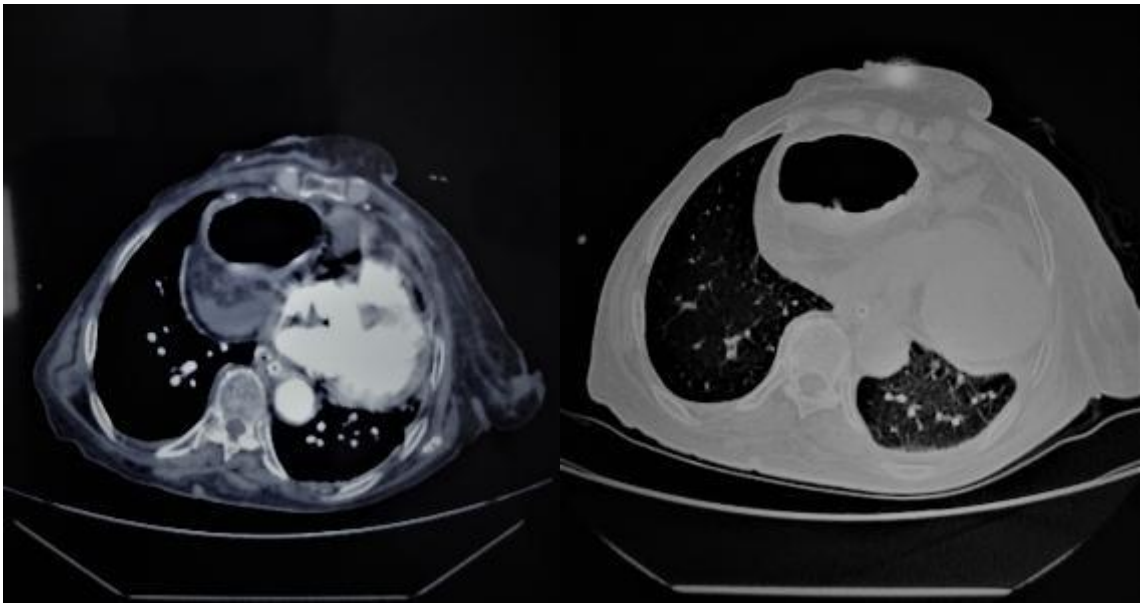

Figure 1 Thoraco-abdominal CT scan showing a Morgagni hernia

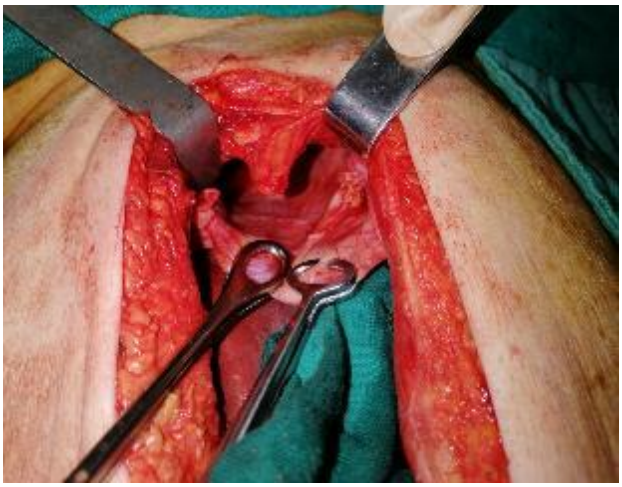

Figure 2 Intraoperative image of the Morgagni hernia

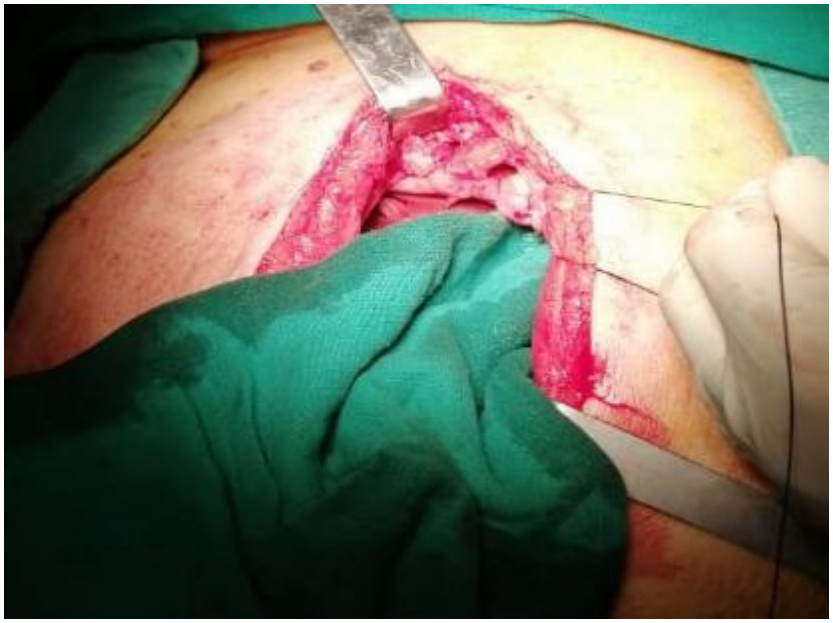

Figure 3 Surgical repair of the Morgagni hernia by suture

3. Discussion

Morgagni hernia was first described in the 18th century by Giovanni Battista Morgagni. Its incidence is estimated at 1 per 2,000–5,000 live births, with an annual incidence of 0.2–1.1 cases. It represents only 1–6% of all congenital diaphragmatic hernias. Increased recognition in recent decades is likely due to earlier and more accurate diagnosis. A male predominance has been reported.

The etiology remains unclear but is considered multifactorial. Experimental studies suggest that certain teratogenic drugs (e.g., thalidomide, nitrofen, phenmetrazine) may induce diaphragmatic defects in animal models.

The congenital defect, initially small at the Larrey foramen, gradually enlarges, explaining the often delayed clinical presentation. Symptoms are generally mild and nonspecific, commonly recurrent respiratory infections, and less frequently gastrointestinal complaints.

Chest radiography and upper GI contrast studies may establish the diagnosis, though they can be inconclusive when herniation is intermittent or involves solid organs. CT scanning provides a more accurate and less invasive assessment. In neonates, ultrasound may define defect size and hernia contents.

MH is most often right-sided (90%), bilateral in 8%, and left-sided in only 2%. A hernia sac is always present, usually non-adherent, and most frequently contains transverse colon and omentum, less often small intestine. Associated anomalies include congenital heart disease (septal defects, tetralogy of Fallot), gastrointestinal malformations (esophageal atresia, intestinal malrotation), and syndromes such as Down or Marfan.

Differential diagnoses include anterior mediastinal tumors, pneumothorax, pulmonary tumors, or atelectasis.

Surgical repair is indicated in all cases, given the risk of visceral strangulation or colonic perforation. The transabdominal approach is preferred as it allows thorough exploration, easier hernia reduction, bilateral repair, and management of complications. The transthoracic approach provides good exposure but is contraindicated in bilateral hernias, intestinal malrotation, or strangulation, and requires chest drainage.

Laparoscopic repair offers magnification, less operative trauma, faster recovery, and better cosmetic outcomes, though it is contraindicated in complicated cases and technically difficult with dense adhesions. Mesh reinforcement may be required for large defects.

The need to excise the hernia sac remains controversial. Preservation avoids cardiopulmonary complications, while some advocate resection to prevent recurrence or mesothelial cyst formation. Postoperative outcomes are usually favorable, with no reported mortality. [1,2,3,4,5].

4. Conclusion

Morgagni hernia is rare, often asymptomatic, and typically diagnosed late due to nonspecific symptoms. Imaging is essential to avoid misdiagnosis. Surgical treatment is mandatory to prevent hernia-related complications and generally yields excellent results.

Compliance with ethical standards

Disclosure of conflict of interest

The authors declare that they have no conflict of interest.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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