

# Morgagni Hernia - Forgotten Cause of Epigastric Pain

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**Abstract:** ***Introduction:** Morgagni hernia is the rarest of all congenital diaphragmatic hernia (CDH) (4%-5% of cases), presenting mostly in childhood. Only 12 symptomatic adult cases of CDH have been reported. Adult diaphragmatic hernias are usually due to trauma or iatrogenic injury. **Case report:** We present a case of non traumatic non iatrogenic right side morgagni hernia in a 50 year old female who came with complains of pain abdomen and vomiting. Pt was hemodynamically stable with no respiratory distress. Abdomen was distended. On CECT, 3cm defect noted on right side of diaphragm with colon herniating resulting in SAIO with vascular compromise. Emergency laparotomy was done followed by primary repair of defect and ICD placement. **Conclusion:** This case illustrates the prompt and accurate diagnosis of diaphragmatic hernia while assessing patients with recurrent abdominal pain, pulmonary infections and vomiting. Timely intervention allows repair to be done before development of morbid complications.*

**Keywords:** morgagni hernia, diaphragmatic hernia, SAIO, case report

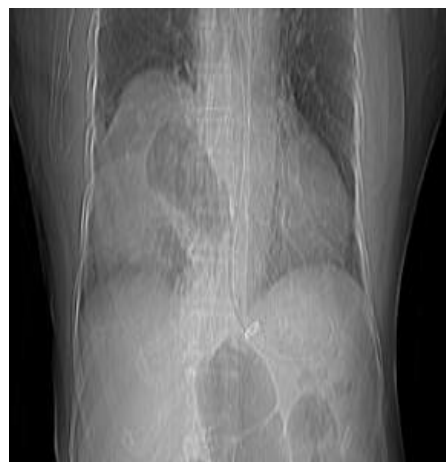
## 1. Introduction

CDH occurs in 1 in every 2500-5000 live births<sup>1</sup>. There are three types: bochdalek, hiatal and morgagni hernia. Morgagni hernia is the rarest of all congenital diaphragmatic hernia (CDH) (4-5% of cases)<sup>2</sup>, presenting mostly in childhood. Only 12 symptomatic adult cases of CDH have been reported<sup>3</sup>. For this reason it makes our case of morgagni hernia in adults a rare presentation. Chest x-ray appearances may be misinterpreted as pleural effusion or pneumothorax and disastrous consequences can result following chest tube insertion

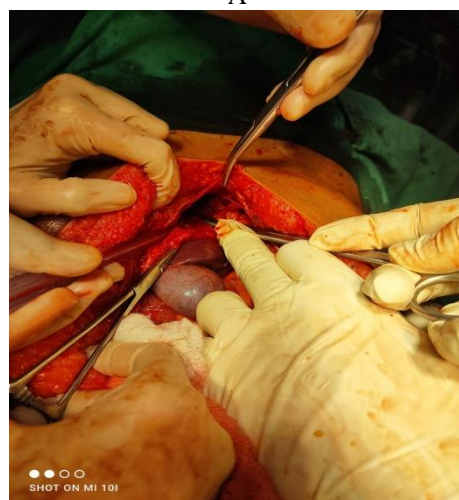
## 2. Case Report

We present a case of non traumatic, non iatrogenic right sided morgagni hernia in a 50 year old female who came with complains of pain abdomen, vomiting and obstipation for 2 days. On examination abdomen was distended, no guarding rigidity with fecal content in ryles tube. Patient underwent primary resuscitation and routine blood investigations which came out to be normal. Provisional diagnosis of SAIO was made for which chest and abdominal x-rays were done. Chest x-ray revealed right paracardiac opacity with a gaseous shadow and abdominal x-ray revealed dilated bowel loops.

On CECT, 3cm defect was noted on right side of diaphragm with liver and colon herniating through it resulting in SAIO. Emergency laparotomy with upper midline incision was done. 3-4 cm defect in right anterior diaphragm with part of right lobe of liver and transverse colon noted herniating through it with no vascular compromise. Contents were reduced, primary repair of defect and right ICD placement was done. Surgery was uneventful and patient was able to fully recover with start of oral feeding from POD 5. Post OT echo was done to rule out any congenital heart defects



A



B

**Figure 1:** A- preoperative chest xray showing right paracardiac shadow due to herniated abdominal contents, B- intraoperative image showing defect in the anterior portion of diaphragm



**Figure 2:** Transverse section of CECT chest showing herniated bowel loops and part of liver in right hemithorax

### 3. Discussion

Morgagni is a type CDH occurring due to defect in costosternal trigone. Abdominal contents can herniate through this defect resulting in nonspecific respiratory and gastrointestinal symptoms. Most common content is omentum followed by colon, small intestine and liver. It is associated with congenital heart disease in 12-25%<sup>4</sup> patients and malrotation in 42%<sup>5</sup>. CDH presenting in adult is a rare entity. Differential diagnosis includes lower lobe lung collapse, consolidation, pericardial fat pad, lymphoma or thymic tumor. CECT is the IOC. Surgical approaches vary from institution to institution; laparotomy vs laparoscopy vs thoracoscopy; primary closure vs mesh repair. Laparoscopic primary repair is technically demanding because of close association with heart and oesophagus. In their study, Pfannschmidt et al. found that the thoracic approach is superior for right-sided hernias because it allows for greater visualisation of the diaphragmatic foramen as well as pericardial and pleural adhesion.<sup>6</sup>

### 4. Conclusion

This case illustrates the rarity of this condition and difficulties in diagnosing a patient with diaphragmatic hernia unless and until it presents with some morbid complications. Prompt intervention prevents the development of life threatening complications such as strangulation and perforation. Diaphragmatic hernia should be kept as a differential diagnosis in patients presenting with recurrent upper abdominal pain, respiratory infections and shortness of breath.

### Declaration

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### References

- [1] Ahmed H. Al-Salem. An Illustrated Guide to Pediatric Surgery. 2014, p.330
- [2] Ahmed H. Al-Salem. An Illustrated Guide to Pediatric Surgery. 2014, p.351
- [3] Elfiky A, Daneshvar D, Krzyzak M, Mukherjee I. Adult onset Morgagni hernia: medical vs. surgical management. *Cureus* 2019;11:e4626.
- [4] Gray BW, Fifer CG, Hirsch JC, Tochman SW, Drongowski RA, Mychaliska GB, et al. Contemporary outcomes in infants with congenital heart disease and Bochdalek diaphragmatic hernia. *Ann Thorac Surg.* 2013; 95: 929–34.
- [5] Afr J Paediatr Surg. 2016 Jan-Mar;13(1):47-9. doi: 10.4103/0189-6725.181708
- [6] Pfannschmidt J, Hoffmann H, Dienemann H. Morgagni hernia in adults: Results in 7 patients. *Scand J Surg.* 2004;93:77–81.