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Hernia of Morgagni in Adults revelated by a gastric perforation : An atypical clinical presentation (a case report).

Dr Maaroufi Fathillah elkarim. Pr Rabbani K. Dr Erica C.E Pr Louzi A.

Alcaddi Ayyad university of medicine Maarrakech
General surgery department Mohemed VI

Abstract *: Morgagni hernia is a rare type of congenital diaphragmatic hernia. In general, this pathology is diagnosed in children; in adults it is frequently discovered in emergency or incidentally. The most common is asymptomatic but in complicated cases it is a cause of acute surgical abdomen. The main symptoms are presented by : dyspnea, cough, sternal pain, and bowel obstruction depending on the extent of the hernia. The hernia usually contains omentum, bowel (colon), and sometimes liver. In this article, we rapported the case of an 65-year-old female patient, admitted to the emergency departement with history of epigastric pain and persistent vomiting, with a acute surgical abdomen .The diagnostic was confirmed by imaging, objectifying a complicated morgagni hernia. She was successfully managed by an emergency surgical intervention.*

Keywords: Morgagni hernia, gastric perforation

INTRODUCTION

The foramen of Morgagni is a triangular space located between the muscle fibres from the xiphisternum and the fibres from the costal margin that insert onto the central tendon (1). Hernia of Morgagni is located just posterolateral to the sternum. It is caused by a congenital defect in the fusion of septum transverses of the diaphragm and the costal arches. This weakness in the diaphragm later would be stretched by rapid rise in intraperitoneal pressure, giving rise to a hernia. that it is for this reason that hernia of Morgagni is usually not discovered in children (2). The patient may be asymptomatic and the hernia may be discovered incidentally during a paraclinical investigation. In uncomplicated forms the symptomatology is nonspecific and may include respiratory signs and digestive signs (epigastric discomfort and indigestion). In severe cases, it might present with symptoms of bowel obstruction or strangulation. The diagnosis is usually confirmed by a lateral chest radiograph, barium studies, or computed tomography of the chest with contrast. The treatment is essentially surgical with the possibility of the thoracic or abdominal approach , and can be done using laparoscopy also.

We'll be reporting an atypical clinical presentation of morgagni hernia in an elderly woman revealed by gastric perforation treated with an emergency surgical intervention to draw clinicians' attention to the existence of this clinical variety.

CASE PRESENTATION

A 65-year-old patient presented to the emergency department for abdominal pain onset suddenly for 3 days with persistent vomiting, without occlusive syndrome. however we note in the interrogation the notion of dyspnea with low abundance melena in the past. There was no significant past medical history, especially he have any recent trauma or surgery body. On clinical examination the patient had tachycardia and hypotension ; the temperature was of 38.5°C ; on palpation, generalized abdominal sensitivity with epigastric defense is observed, without abdominal distension. Respiratory sounds were found to be diminished at the right basal region on auscultation. The rectal examination was within normal limits. The biological assessment showed hyperleukocytosis at 22070 / mm3, and haemoglobin of 14g /dl with a haematocrit of 41,1%. , a CRP of 110,18 mg/L. Erect abdominal and chest radiograph showing air-fluid level in the right hemithorax with a pneumoperitoneum (Figure 1). The abdominal CT showed intrathoracic pylorus and antrum of stomach On CT scan distal part of stomach (Figure 2).The diagnosis of Morgagni hernia complicated with a gastric perforation was set;a surgery was performed urgently. An upper midline laparotomy was performed. At surgical exploration, a defect of size was 10x7 cm , was identified just behind xiphisternum through which part of the stomach, and omentum had herniated into mediastinum (figure3 ;5). After confirming viability by inspection, the contents were reduced back into abdomen ; a pyloric perforation of about 2cmx1cm was observed, which explains the presence of pneumoperitoneum (Figure 4). The rest of the gut, intra-abdominal structures, and organs were found to be normal. The diaphragmatic rent was repaired and plication of diaphragm done with non-absorbable suture. The pyloric perforation was sutured with absorbable thread. The post-operative course of the patient was uneventful, and the patient was discharged on post-operative Day 5. with the installation of 2 drain of Redon under hepatic.Oral feeding was started on the postoperative fifth day.. The patient was discharged from our service on the 6th postoperative day with no complications.

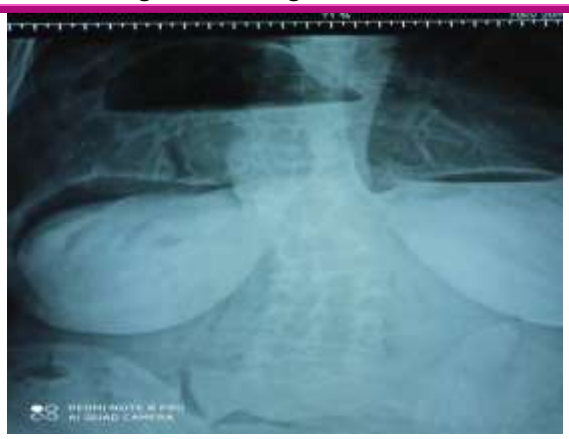

Figure 1: Chest X-Ray: stomach shadow showing air fluid level located in thorax , with pneumoperitoneum

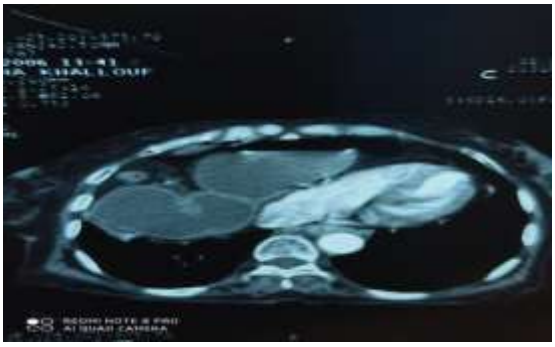

Figure 2: Ct showed intrathoracic pylorus and antrum of stomach.

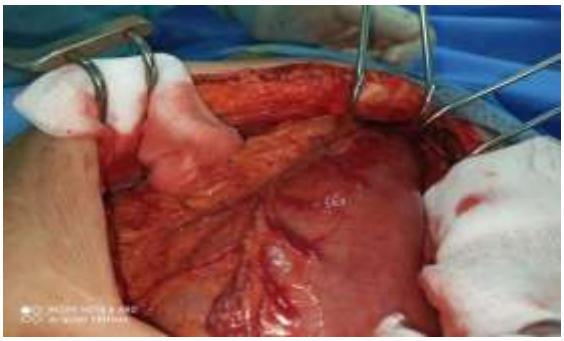

Figure 3: Distal part of stomach with surrounding omentum herniating into retrosternal defect

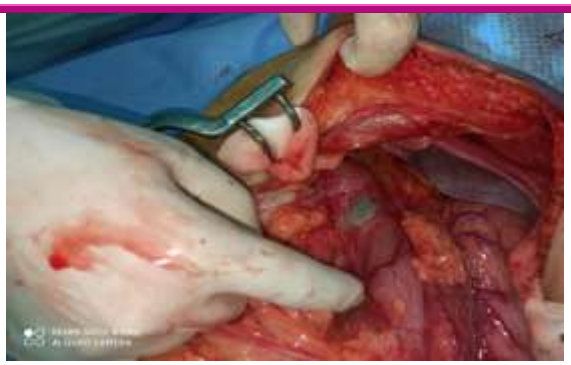

Figure 4: Pre-opertative photograph showing a pyloric perforation after reduction

Figure 5: Intraoperative photograph showing central defect just behind xiphisternum.

DISCUSSION

Hernia of Morgagni was first described by Giovanni Battista Morgagni, an Italian anatomist and pathologist in 1769, while performing a postmortem examination (3). it is the rarest of the congenital diaphragmatic defects with a reported frequency of 1% to 5.1% (4). The more common localisation is the right side and is situated anteriorly [5]. Almost 90% of Morgagni's hernias are reported to be on the right side, with 2% located on the left and 8% bilateral [6]. Usually, the hernia sac contains the transverse colon followed by stomach, omentum, and small intestine but occasionally the liver may also protrude into the sac [7]. Although it is a congenital pathology the diagnosis may not be made until adulthood ; thus in children the symptomatology is mainly respiratory due to lung hypoplasia and pulmonary hypertension. Contrary to this, adults are usually asymptomatic with majority diagnosis made incidentally on imaging (8,9). vague epigastric discomfort may be the only symptom in many cases. However, this rare pathology can be revealed by the

occurrence of a complication related to the contents of the hernial sac ; so the patient can present himself with obstructing, even strangulating symptoms like literature gastric outlet obstruction and small and large bowel volvulus(10). in our case the contents state represented by the stomach and the ommentum. However, stomach is a more frequent content in left sided larrey's hernia (11). Diagnosis can be made by plain chest or abdominal X-ray. Computed tomography scan can be useful in diagnosing the contents of the hernia sac . Magnetic resonance imaging can distinguish Morgagni's hernia from other mediastinal masses and is noninvasive too [12]. Barium studies could be useful in supplementary investigation. Treatment of Morgagni hernia, once diagnosed, is surgical to prevent complications (13,14). The approach can be abdominal (classic or laparoscopic) or thoracic (classic or thoracoscopy). The abdominal aproach is preferred because: easy reduction of herniated viscera . It is indicated in complicated forms in emergency situations, where resection of necrosed bowel has to be done. The thoracic approach, can not evaluate bilateral forms and requires pleural drainage (15,16). The surgical procedure includes the closure of the diaphragmatic opening either directly, Among repairs, suture repair usually done for small defects with mesh being preserved for defects greater than 3cm(1). However, in emergency situations, peritonitis or extensive contamination may restrict the use of mesh.

CONCLUSION

Morgagni's Hernia is a very rare clinical entity ; it can be the cause of acute surgical abdomen. Diagnosis is based on imaging methods (chest X-ray, CT, MRI). Treatment is surgical wthi abdominal approach in complicated forms. The laparoscopic approach becomes a gold standard,

REFERENCES

1. Pfannschmidt J, Hoffmann H, Dienemann H: Morgagni hernia in adults: results in 7 patients . Scand J of Surg. 2004, 93:77–81. 10.1177/145749690409300117

2. Lev-Chelouche D, Ravid A, Michowitz M, et al. Morgagni hernia: unique presentations in elderly patients. J Clin Gastroenterol 1999;28:81–2

3. Morgagni GB. The seats and causes of diseases investigated by anatomy.London: Millar and Cadell, 1769;3:205

4. Nasr A, Fecteau A: Foramen of Morgagni hernia: presentation and treatment.. Thorac Surg Clin. 2009, 19:463–468. 10.1016/j.thorsurg.2009.08.010

5. R. P. Sakalkale, M. Sankhe, S. Nagral, and C. V.Patel,"Obstructed Morgagni's hernia (a case report)," Journal of Postgraduate Medicine, vol. 37, no. 4, pp. 228–230, 1991.

6. V. Papanikolaou, D. Giakoustidis, P. Margari et al., "Bilateral morgagni hernia: primary repair without a mesh," Case Reportsin Gastroenterology, vol. 2, no. 2, pp. 232–237, 2008.

7. F. Paris, V. Tarazona, M. Casillas et al., "Hernia of morgagni," Thorax, vol. 28, no. 5, pp. 631–636, 1973.

8. Kuster GGR, Kline LE, Garzo G. Diaphragmatic hernia through the foramen of Morgagni: laparoscopic repair case report. J Laparoendosc Surg. 1992;2(2):93–100 [PubMed]

9. Newman L, Eubanks S, Bridges M, Lucas G. Laparoscopic diagnosis and treatment of Morgagni hernia. Surg LaparoscEndosc. 1995;5:27–31 [PubMed]

10 . MalavModi, Amit Kumar Dey, Ajay Mate, and Samir Rege,"Strangulated Morgagni's Hernia: A Rare Diagnosis and Management," Case Reports in Surgery, vol. 2016, Article ID 2621383, 3 pages, 2016. doi:10.1155/2016/2621383

11. Vinard JL, Palayodan A, Collomb P. Emergency laparoscopic treatment of a strangulated Morgagni hernia. Eur J Coeliosurg. 1997;1:35–40

12. V. Papanikolaou, D. Giakoustidis, P. Margari et al., "Bilateral morgagni hernia: primary repair without a mesh," Case Reports in Gastroenterology, vol. 2, no. 2, pp. 232–237, 2008.

13. Arora S, Haji A, Ng P. Adult Morgagni hernia: the need for clinical awareness, early diagnosis and prompt surgical intervention. Ann R Coll Surg Engl. 2008;90(8):694-5.

14. Georgescu SO, Crumpei F, Cijevschi Prelipcean C. Morgagni hernia- laparoscopic approach. Jurnalul de chirurgie (Iasi). 2013; 9(3): 269-74

15. Godazandeh G, Mokhtari-Esbuie F. Laparoscopic repair of Morgagni hernia: three-case presentation and the literature. Case Rep Surg. 2016;2016:4268539.

16. Esposito C, Escolino M, Varlet F, Saxena A, Irtan S, Philippe P, et al.Technical standardization of laparoscopic repair of diaphragmatic hernia in children: results of a multicentric survey on 43 patients. Surg Endosc. 2017;31(8):3320-2.