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Research Article

HERNIA OF MORGAGNI IN ADULTSREVELATED BY A GASTRIC PERFORATION: AN ATYPICALCLINICALPRESENTATION (A CASE REPORT)

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ABSTRACT

Morgagniherniaisar are type of congenitaldiaphragmatichernia .In general, this pathology is diagnosed in children; in adultsitis frequently discovered in emergency or incidentally. The most common is a symptomatic 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 herniausually contain somentum, bowel (colon), and some times liver.

In this article, wer apported 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 morgagnihernia. She was successfully managed by an emergency surgical intervention.

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 post erolateral to the sternum. It is caused by a congenital defect in the fusion of septum transverses of the diaphragm and the costal arches. This weak ness in the diaphragm later would be stretched by rapidrise in intraperitoneal pressure, givingrise to a hernia. That it is for this reason that hernia of Morgagni is usually not discovered in children (2).The patient may be a symptomatic and the hernia may be discovered incidentally during a paraclinical investigation. In un complicated forms the symptomatology is nonspecific and may include respiratory signs and digestive signs (epigastric dis comfort and indigestion). In severe cases, it might present with symptoms of bowel obstruction or strangulation. The diagnosis is usually confirmed by a lateral chest radio graph, 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 laparos copy also.

We'll be reporting an a typical 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

A65-year-old patient presented to the emergency department for abdominal pain on set suddenly for 3 days with persistent vomiting, without occlusive syndrome. how ever 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 defenseis observed, without abdominal distension. Respiratory sounds were found to be diminished at the right basal region on auscultation. The rectal examination was with in 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 chestradiograph showing air-fluidlevel 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; asurgery was performed urgently. An upper midline laparotomy was performed. Atsurgical exploration, a defect of size was 10x7 cm, was identified just behind xiphisternum

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through which part of the stomach, and omentum had herniated into mediastinum (figure 3 ;5). After confirming viability by inspection, the contents were reduced back into abdomen ; apyloric 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 un event ful, and the patient was discharged on post-operative Day 5. with the installation of 2 drain of Redon underhepatic. Oral feeding was started on the postoperative fifth day.. The patient was discharged from our service on the 6th postoperative day with no complications.

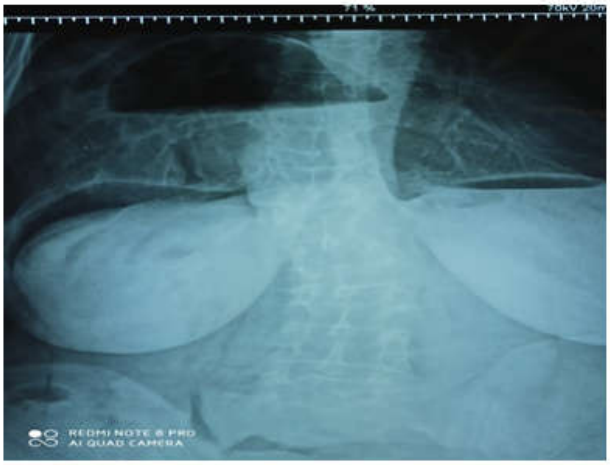

Figure 1 Chest X-Ray: stomach shadow showing air fluid level located inthorax, with pneumoperitoneum

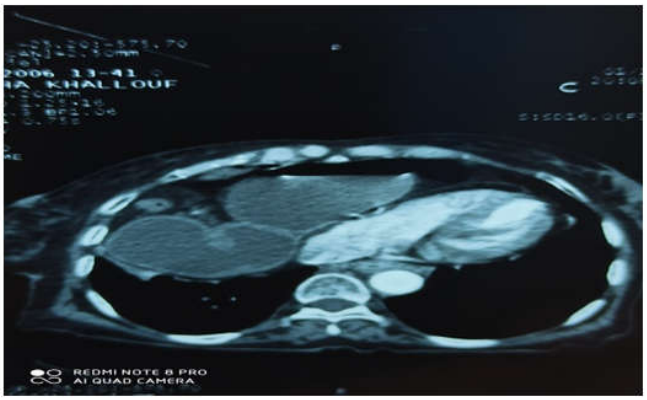

Figure 2 Ct showed intrathoracic pylorus and antrum of stomach

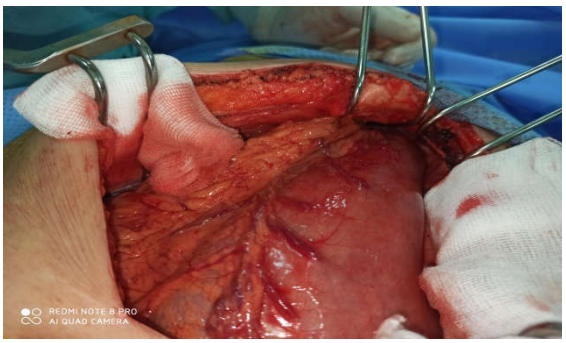

Figure 3 Distal part of stomach with surrounding omentum herniating into retrosternal defect

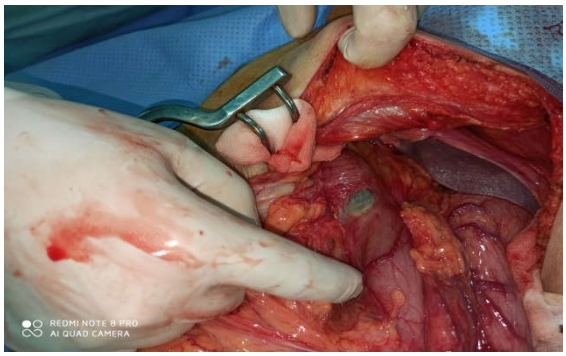

Figure 4 Pre-opertative photograph showing a pyloric perforation after reduction

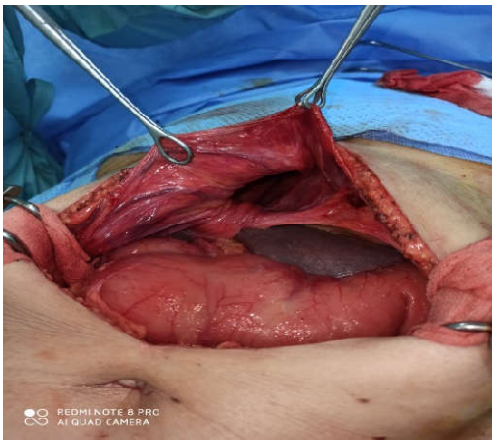

Figure 5 Intra operative photograph showing central defect just be hind xiphisternum

DISCUSSION

Hernia of Morgagni was first described by Giovanni Battista Morgagni, an Italian anatomist and pathologistin 1769, while performing a post mortem 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'shernias 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]. Althoughitis a congenital pathology the diagnosismay 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 a symptomatic 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 him self with obstructing, even strangulating symptoms like literature gastri coutlet obstruction and small and large bowel volvulus(10).inour case the contents state represented by the stomach and the ommentum. However, stomachis a more frequent content in left sided larrey'shernia (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'shernia from other mediastinal masses and is non invasive too [12]. Barium studies could be useful in supplementary investigation. Treatment of Morgagni hernia, once diagnosed, issurgical to prevent complications (13,14).

The approachcanbe abdominal (classic or laparoscopic) or thoracic (classic or thoracoscopy). The abdominal aproachi spreferred 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 require spleural 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'sHerniais a veryrare clinical entity; itcan 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,

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