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RESEARCH ARTICLE

LEFT PARADUODENAL HERNIA: A CASE REPORT OF RARE CAUSE OF INTESTINAL OBSTRUCTION

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Abstract

Internal hernia is a relatively uncommon condition and is a rare type of intestinal obstruction. Paraduodenal hernia is considered the most common type of internal hernias. The rare prevalence and the variable symptoms make the clinical diagnosis of paraduodenal hernia a diagnostic challenge. We present the case of acute intestinal obstruction by left para-duodenal internal hernia treated at the general surgery department of the Mohammed VI University Hospital Center in Marrakech, Morocco in order to contribute to the knowledge of the clinical particularities of this entity.

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Introduction:-

Internal hernia is an abnormal protrusion of abdominal viscera (most commonly small intestine or omentum) through a defect, which may be congenital or acquired, within the peritoneum or mesentery. Internal hernia is a relatively uncommon condition accounting for less than 1% of the abdominal hernias, and it is a rare cause of intestinal obstructions [1]. The types of internal hernia (in decreasing order) are paraduodenal, pericoecal, foramen of Winslow, transmesenteric,transmesocolic, pelvic, intersigmoid, retroanastomotic, and transomental hernia [1]. Paraduodenal hernia is difficult to diagnose because of variable clinical presentation which may include acute intestinal obstruction and recurrent abdominal pain [2]. Herein, we present a case of a young male patient who presented with symptoms consistent with intestinal obstruction.

Case Report

A 28 years-old man was admitted on an emergency basis; for diffuse abdominal pain, vomiting and intestinal obstruction. This symptomatology had been evolving for 48 hours. No history of abdominal surgery or abdominal trauma was found on questioning. The physical examination confirmed the presence of an occlusive syndrome with abdominal distension and meteorism. The parietal hernial orifices were free. The remainder of the physical examination was normal. The abdomen x-ray noted air fluid levels; his abdominal CT imaging showed that the jejunum was folded at the left abdomen

At the opening, the peritoneal cavity was the site of a bloody effusion. The exploration noted the incarceration of a segment of the ileum at the level of the left para-duodenal fossa (Figure 1, Figure 2), The incarcerated ileum was necrotic on approximately 170 centimeters, located at 2m50 from the Treitz angle, the treatment consisted resection of the necrotic ileum (Figure 3), with anastomosis at the same time. Liquid feeding was authorized on the fourth day and discharge from the hospital was on the seventh postoperative day and had no complications during follow-up so far.

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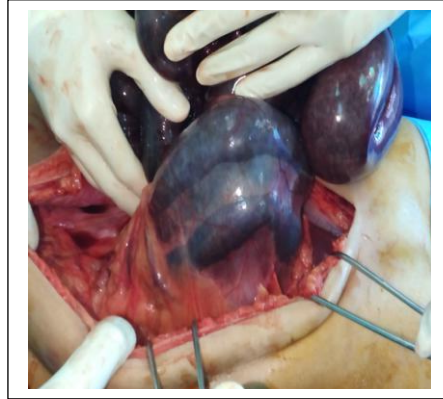


Figure 1: Small gut in the left paraduodenal area enclosed in a hernia sac.



Figure 2:- Paraduodenal hernia sac opened and the bowel reduced from it.



Figure 3:- Resection of the necrotic ileum.

Discussion:-

Paraduodenal hernias are a type of internal hernia and a rare cause of intestinal obstruction accounting for about 0.5% of all hernias.

There are multiple theories about the mechanism of paraduodenal hernia formation. The most widely accepted theory was first described by Andrews in 1923, who postulated that it results from an embryological error during the midgut rotation. The failure of the mesentery to fuse with the parietal peritoneum of the posterior abdominal wall after the return of the herniated intestinal loops to the abdominal cavity in the early weeks of development creates a potential space of herniation behind the mesocolon [3].

The left Para duodenal fossa of Landzert present in 2% of autopsy cases is situated to the left of ascending or fourth part of the duodenum and is caused by the raising up of a peritoneal fold by the inferior mesenteric vein as it runs along the lateral side of fossa and then above it. [4] Small intestine may herniate through the orifice posteriorly and downward to the left, lateral to the ascending limb of duodenum extending into descending mesocolon and left part of the transverse mesocolon. The free edge of hernia thus contains the inferior mesenteric vein and ascending left colic artery. [5]

Faced with an occlusion of the young subject without a history of surgery or abdominal trauma, the diagnosis of internal hernia can be evoked, especially when the examination finds a long history of recurrent abdominal pain. Their diagnosis is usually made intraoperatively [6, 7]. However, with the development of medical imaging, and in particular of CT and magnetic resonance imaging, preoperative diagnosis is nowadays possible [8]. During surgery, the diagnosis of the left para-duodenal hernia can be difficult, must first locate the hernial orifice, the neck is located between the duodeno-jejunal angle at the top and the inferior mesenteric artery at the bottom, while the free border of the neck contains the inferior mesenteric vein and its identification also contributes to the diagnosis [9, 6]; the sac is then retro-mesocolic. In fact, the majority of these hernias have a wide and loosely necked neck, thus making it possible to obtain a complete reduction of its content by simple traction and the hernial orifice must be closed using absorbable threads on no. However, any attempt at excision of the hernial sac should be prohibited [6, 10].

Conclusion:-

Paraduodenal hernias are extremely rare and difficult to diagnose. Acute awareness is required, since without prompt surgical treatment the mortality can be high. Radiologic investigations are helpful but should not delay definitive treatment in an unwell patient.

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