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Left-Sided Paraduodenal Hernia ; rare cause of acute intestinal obstruction :Case report

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ABSTRACT

Left paraduodenal hernia is a rare congenital abnormality which can be life-threatening by the fact that it can cause intestinal obstruction progressing to strangulation and perforation.

We report the case of a 16-year old girl admitted for occlusive syndrome. Abdominal CT found an intestinal obstruction; surgical exploration found jejunal loops incarcerated into left paraduodenal hernia diagnosed intraoperatively.

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Keywords: Paraduodenal hernia, internal hernia, general surgery.

1. INTRODUCTION:

Internal hernia is the protrusion of a viscus through a defect within the peritoneal or retroperitoneal compartments. Those defects can be congenital or acquired

There are several types of internal hernias, such as the paraduodenal Hernia which is the most common type (53%) [1].

Left paraduodenal hernia is a congenital internal hernia [2, 3]. It accounts for two thirds of the paraduodenal hernias. Often asymptomatic, however, when symptoms do occur, they can

27 include abdominal pain, nausea, vomiting, and bowel obstruction which is a serious
28 complication that requires medical attention. [4].

29 Surgeons' knowledge of this abnormality can reduce their morbi-mortality. Hence the interest
30 of presenting this rare case.

31 **2. CASE REPORT:**

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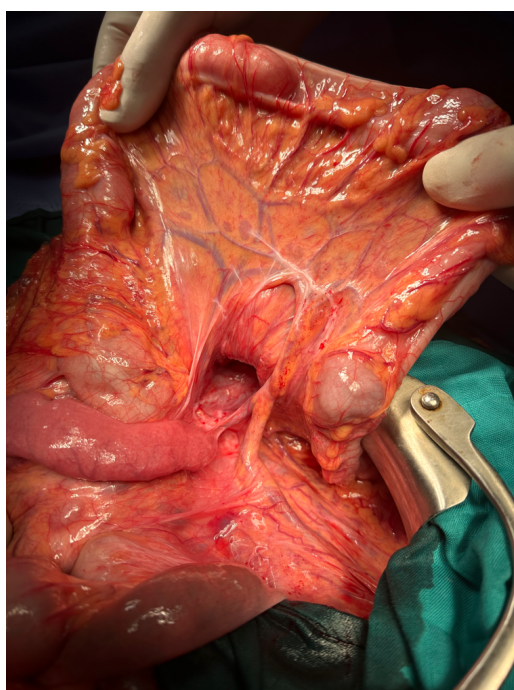
33 A 16 years old girl, with no medical history, admitted in the emergency room for an occlusive
34 syndrome, colicky abdominal pain and vomiting. Clinical examination found a distended
35 abdomen with tenderness, the rectum was empty in digital rectal examination.

36 Biological screening was normal. A CT scan was performed and showed a bowel obstruction.

37 Surgery was performed (Fig 1, 2), and the exploration revealed incarceration of jejunal loops
38 in a left para duodenal hernia,

39 once the bowel was reduced from the paraduodenal space, the blood flow was reestablished
40 and the small bowel resumed a proper functioning.

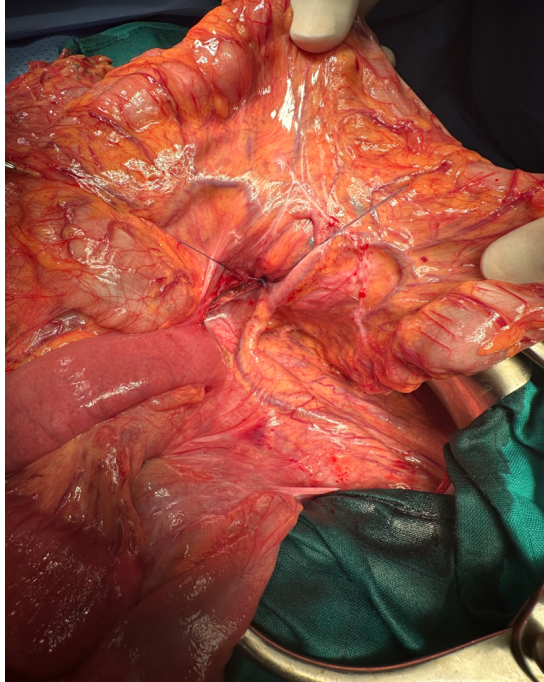
41 Post-operative outcomes were uneventful



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43 Fig 1 : Operatory imaging showing a Left-sided paraduodenal hernia (fossa of
44 Landzert)

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47 Fig 2 : Surgical photo showing the paraduodenal hernia after closing the collar.

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50 3. DISCUSSION

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52 The left para duodenal hernia is the result of a failure of the peritoneal sheets of the treitz
53 fascia [5], due to an abnormality in the rotation of the primary intestinal loop during the
54 embryonic phase, which causes a defect in accommodation between the left mesocolon and
55 the retro peritoneum, resulting in a left para duodenal dimple called the Landzert Pit [5, 4].

56 Left paraduodenal hernia (PDH) makes for around 40% of all internal hernias. It is due to the
57 prolapse of bowel through fossa of Landzert, an anatomic variant that is found in around 2%
58 of the population. This hernia is presumed to be spontaneously reducible in many patients
59 with recurrent symptoms [13].

60 The pit is located to the left of the fourth duodenum and posterior relative to the inferior
61 mesenteric vein [7, 8]. Para duodenal hernias account for 53% of internal hernias and left para
62 duodenal hernias account for 75% of para duodenal hernias [6]. Often asymptomatic or
63 manifests as vague abdominal pain with dyspeptic disorders [7, 9, 10]. They are rarely
64 complicated (0.2-0.9%) by the incarceration of small loops in the Landzert Trough leading to
65 occlusive syndrome by intestinal obstruction [6,7]. The diagnosis is made by the abdominal
66 scanner which objective an agglutination of the small loops to the left of the angle Jejunol
67 duodeno of Treitz [12, 11]. Treatment is a surgical emergency [12, 6]. It consists in releasing
68 the incarcerated hial, evaluating the vitality of the handles and closing the collar in separate
69 points with or without absorbable thread [7, 9]. The surgical approach can be open [9] or
70 laparoscopic with less postoperative pain, early recovery and a short hospital stay [6].

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73 4. CONCLUSION

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75 Paraduodenal hernias are congenital internal hernias that usually present with non-specific
76 symptoms, and are therefore rarely diagnosed preoperatively. Left-sided paraduodenal
77 hernias are the most common of the para duodenal hernias, they are three times more likely
78 to occur than right-sided ones. Both hernias present similarly, but have a differing
79 embryological basis. The diagnosis is scannographic. Its treatment is surgical preferentially
80 by first laparoscopic.

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82 ETHICAL APPROVAL

83 As per international standard or university standard written ethical approval has been
84 collected and preserved by the author(s).

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