



A Case Report on Left-sided Paraduodenal Hernia: Rare Cause of Acute Intestinal Obstruction

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Study

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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 showed an intestinal obstruction; surgical exploration found jejunal loops incarcerated into left paraduodenal hernia.

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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 para duodenal hernia is a congenital internal hernia [2,3]. It accounts for two thirds of the para duodenal hernias. Often asymptomatic, however, when symptoms do occur, they can include abdominal pain, nausea, vomiting, and bowel obstruction which is a serious complication that requires medical attention [4].

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

2. CASE PRESENTATION

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

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

Surgery was performed (Figs. 1,2), and the exploration revealed incarceration of jejunal loops in a left para duodenal hernia, once the bowel was reduced from the paraduodenal space, the blood flow was reestablished and the small bowel resumed a proper functioning.

Post-operative outcomes were uneventful.

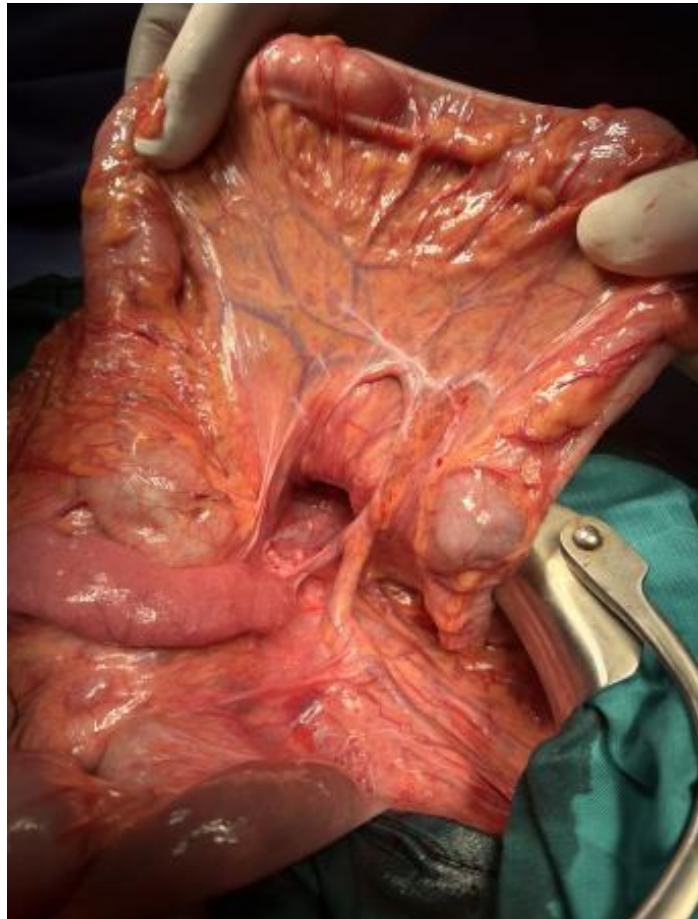


Fig. 1. Operatory imaging showing a Left-sided paraduodenal hernia (Fossa of Landzert)



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

3. DISCUSSION

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

“Left paraduodenal hernia (PDH) makes for around 40% of all internal hernias. It is due to the prolapse of bowel through fossa of Landzert, an anatomic variant that is found in around 2% of the population. This hernia is presumed to be spontaneously reducible in many patients with recurrent symptoms” [6].

“The pit is located to the left of the fourth duodenum and posterior relative to the inferior mesenteric vein” [7,8]. Para duodenal hernias account for 53% of internal hernias and left para duodenal hernias account for 75% of para

duodenal hernias [9]. Often asymptomatic or manifests as vague abdominal pain with dyspeptic disorders [7,10,11]. They are rarely complicated (0.2-0.9%) by the incarceration of small loops in the Landzert Trough leading to occlusive syndrome by intestinal obstruction [9,7]. The diagnosis is made by the abdominal scanner which objective an agglutination of the small loops to the left of the angle Jejunal duodeno of Treitz [12,13]. Treatment is a surgical emergency [12,9]. It consists in releasing the incarcerated hail, evaluating the vitality of the handles and closing the collar in separate points with or without absorbable thread [7,10]. The surgical approach can be open [10] or laparoscopic with less postoperative pain, early recovery and a short hospital stay [10].

4. CONCLUSION

Paraduodenal hernias are congenital internal hernias that usually present with non-specific symptoms, and are therefore rarely diagnosed preoperatively. Left-sided paraduodenal hernias

are the most common of the para duodenal hernias. Diagnosis is based on CT scan. Surgery is the cornerstone of treatment.

CONSENT

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

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

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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