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A rare case of interparietal hernia presenting as intestinal obstruction

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Abstract

An interparietal hernia is a rare form of hernia seen in the inguinal region. Its pathogenesis is not well understood. It frequently causes intestinal obstruction. We present a case of interparietal herniation, who presented with acute symptoms and signs of intestinal obstruction. The male patient was referred to our department with acute signs of intestinal obstruction for three days. His physical examination revealed acute abdomen and intestinal obstruction. X-ray abdomen showed signs of intestinal obstruction. At surgery, a loop of ileum was found gangrenous in an interparietal hernia. Reduction, resection and anastomosis of the gangrenous segment was done. The preperitoneal type of defect was closed with sutures. Interparietal hernias are rare, and represent a problem in the differential diagnosis of conditions functional in the inguinal region. It is more frequent in the males, and mostly presents with intestinal obstruction.

Keywords: Interparietal hernia; Intestinal obstruction; Inguinal hernia

Introduction

Interparietal hernias are quite rare hernias occurring at anterior abdominal wall at various anatomical (parietal) planes in the inguinal region. Since it is a rare condition, it is generally reported as sporadic cases. Its significance is that it frequently presents as a case of 'intestinal obstruction of unknown origin'. We, herewith, reviewed such a case of acutely obstructing interparietal hernia in an adult.

Case Report

A 27-year-old male had presented to our emergency with complaints of left lower abdominal pain, nausea, vomiting and constipation, all of which were lasting for three days. At physical examination, abdominal distension with guarding mainly in left iliac fossa was there. On per rectal examination, ballooning of rectum was present with minimal faecal matter. The bowel sounds were hypoactive. His laboratory tests were as follows: hemoglobin 13.7 g/mm^3, hematocrit 38.4%, leukocyte 11,800/mm^3, platelets 184,000/mm^3, Na 135 mEq/L, K 3.8 mEq/L. X-ray abdomen was suggestive of small bowel obstruction (Figure 1). Abdominal USG demonstrated distended intestinal loops with thickened bowel loops in the left illiac fossa.

The patient underwent emergency surgery with a diagnosis of acute abdomen and incarcerated intra-abdominal herniation of unknown origin. Through a lower midline incision we explored the abdominal cavity. We found that a ten-centimeter loop of ileum, about one and half feet proximal from the ileocecal junction, was incarcerated in a peritoneal recession in the anterior parietal peritoneum and was gangrenous. The peritoneal sac enveloping the edematous

intestine was located in the retromuscular space posterior to the left rectus muscle. The level of herniation was at about one-third of the distance from the symphysis pubis to the umbilicus.

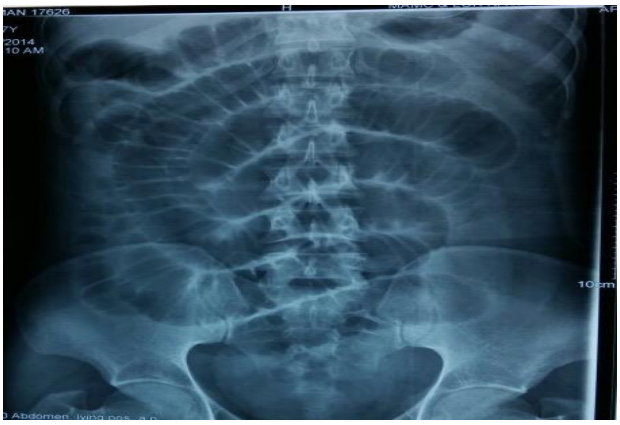

Fig. 1: X-ray abdomen with distended bowel loops suggestive of obstruction

We could not determine whether the point of recession had any relation with the semicircular line. However, we did know that it did not pass through the transversalis fascia, and was definitely not a spigelian hernia. We considered that this was a preperitoneal type of interparietal hernia (Fig. 2). We reduced the gangrenous segment of ileum and resected this segment and did an end-to-end anastomosis. We pulled back the sac and excised it and defect was closed with interrupted polypropylene sutures.

Discussion

Bartolin first described interparietal hernia in 1661.[1] The three subtypes are preperitoneal (between peritoneum and transversalis fascia), interstitial (between transversalis fascia and transverse, internal oblique or external oblique muscles), and superficial (between external oblique and skin or within aponeuroses of the inguinal region) .[2] Lower and Hicken reported in their series, that the interparietal hernias among all inguinal hernias should be as frequent as 0.01-1.6% .[3] It is reported that the interparietal hernia is predominant in males.[1]

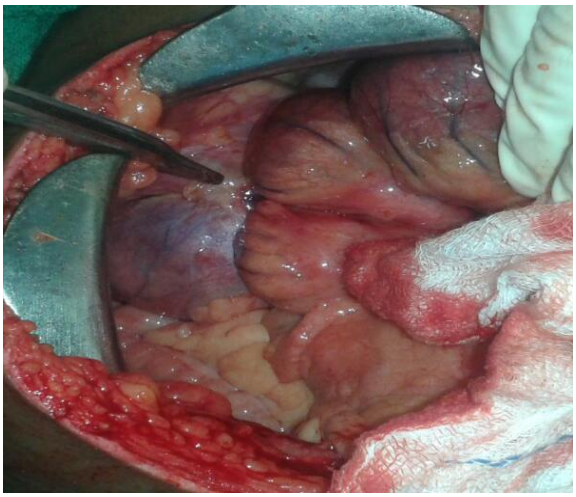

Fig. 2: Reduction of incarcerated hernia revealed a 10 cm gangrenous ileal loop.

The interparietal hernias are frequently confused with inguinal hernias. The diagnosis is usually determined during the operation, as it was the case in our patient. Koot discussed whether the interparietal hernias, which frequently presents with small bowel obstruction and appears at a level above inguinal ligament, are a rare variation of inguinal hernias.[4] In the case of closed vaginal process and intact internal ring, the interparietal hernia should be considered as a preperitoneal type. If the hernia has passed through the internal ring, it is then an interstitial hernia.

The biggest problem with the interparietal hernia is that its preoperative diagnosis is seldom, if ever. We conclude that surgeons may sometimes come across with interparietal hernias either in the form of an odd inguinal hernia or as a case of acute intestinal obstruction of an unknown origin. Surgeons may reach to a correct preoperative diagnosis if they consider it when they have a case of unknown origin. The emergency approach to repair is straightforward once it is diagnosed.

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