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Strangulated Trans Epiploic Hernia: A Rare Case Report and Review of Literature

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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 Report

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ABSTRACT

Internal hernias are protrusions of the abdominal hollow viscera into an intraperitoneal orifice, but which remain within the abdominal cavity.
This does not include iatrogenic post-surgical forms, the most frequent of which are currently observed after orthotopic liver transplants and laparoscopic gastrojejunal shunts with Y-loop anastomosis. The different varieties of internal hernia are usually presented according to their relative frequency and anatomical location, according to the classification proposed by Welch in 1958 and used in most published works: Paraduodenal 50-55%, pericæcal 10-15% transmesenteric 8-10%, foramen of Winslow 6-10%, intersigmoid 4-8%, pelvic 6%, including broad ligament 4-5%.

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We report the case of a 66-year-old patient, followed for diffuse interstitial lung disease at fibrosis stage for 4 years, diabetic on insulin for 20 years, hypertensive on amlodipine for 4 years.
Admitted to our department in an emergency setting for an occlusive syndrome, clinically the patient presented with a tympanic distended abdomen.
A CT scan revealed a gallbladder occlusion and surgical exploration revealed a transepilpoic internal hernia.

Keywords: Trans epiploic hernia; surgical exploration; abdominal herniation.

1. INTRODUCTION

"An internal abdominal herniation is the protrusion of an abdominal organ through a normal or abnormal mesenteric or peritoneal aperture. Internal hernias can present as an acute bowel obstruction, usually with an ischemic component due to vascular strangulation, and account for 0.2% to 5.8% of small bowel obstructions in published series" [1-3]. " Abdominal hernias are common among patients with surgical diseases. The most common type, inguinal hernia, constitutes 75-77% " [4]. " Internal abdominal herniations can be either acquired through a trauma or surgical procedure (iatrogenic internal abdominal herniations) or constitutional or related to congenital peritoneal defects. Because internal abdominal herniations are rare, their diagnosis remains a challenge for both the clinician and the radiologist. Symptoms of internal abdominal herniations are non-specific. Computed tomography (CT) is believed to facilitate the diagnosis of internal abdominal herniations " [5]. Internal hernia through trans-epiploic is a rare cause of intestinal obstruction. It is most often diagnosed intraoperatively[6,7]. This study presents a case of Strangulated trans epiploic hernia in an emergency setting.

2. CASE PRESENTATION

The patient was 66 years old, followed for diffuse interstitial lung disease at the fibrosis stage for 4 years, diabetic on insulin for 20 years, hypertensive on amlodipine for 4 years.

Admitted to our department in an emergency setting for an occlusive syndrome evolving 2 days prior to admission, associated with food vomiting.

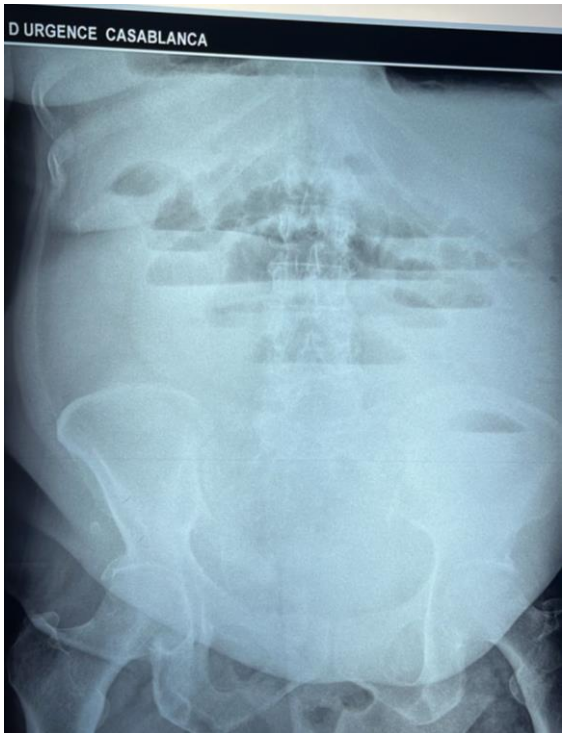

Fig. 1. Hydro-area levels on the ASP

Clinical examination showed a tympanic distended abdomen.Abdomen without preparation (ASP) showed water-area levels in the pelvis (Fig. 1).

On thoraco-abdomino-pelvic CT scan: mechanical bowel obstruction with a transitional level in the right flank at the level of the vertebral body of L4, with no sign of digestive distress (Fig. 2).

Intraoperative examination revealed a small peritoneal effusion of serous fluid, and a trans epiploic internal hernia with viable oelitic content and 3.5cm of upstream oelitic distension, with no sign of digestive distress. The rest of the epilotic apron was without anomaly (Figs. 3 and 4).

— The procedure involved reduction of a trans epiploic hernia with opening of the epilotic defect.

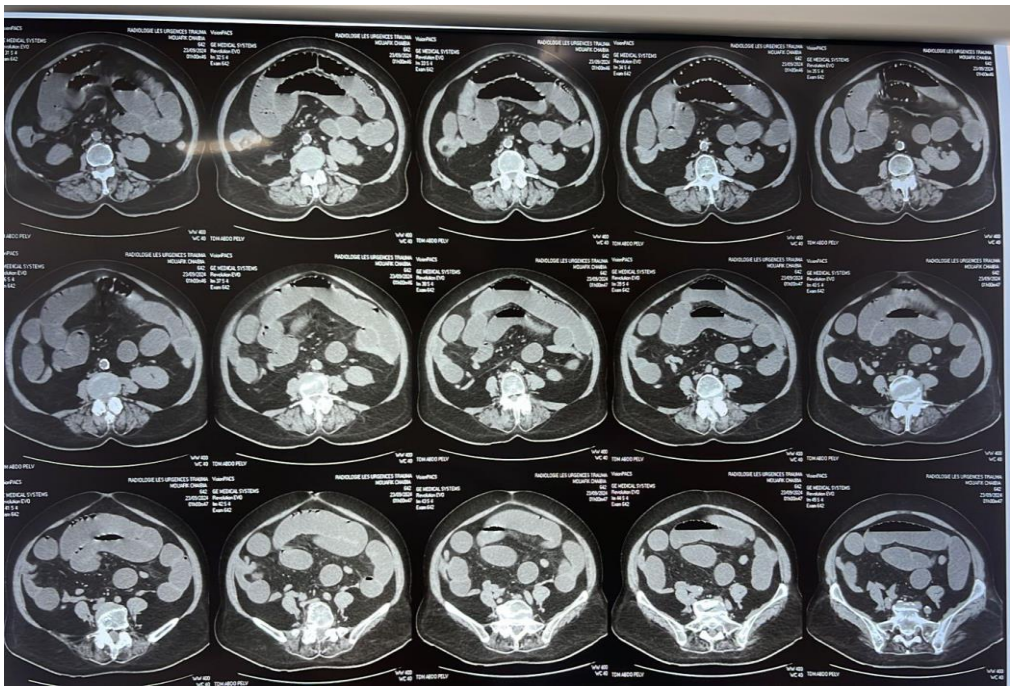

Fig. 2. Scannographic section with hydroaerobic distension and transitional level in the right flank

Fig. 3. Distended coves with transitional level

Fig. 4. The trans epiploic hernia orifice

3. DISCUSSION

Internal hernias are a rare cause of intestinal obstruction, representing about 0.5 to 5% of all causes. Internal hernias are rare, representing 0.5 to 5.8% of cases of intestinal obstruction; however, they are associated with mortality of up to 50% in certain series. trans epiploic hernia is the third most frequently occurring, representing 8% of internal hernias (5).

“ True trans-omental hernias correspond to the incarceration of small intestines in an orifice generally located near the free edge of the greater omentum on the right side. They have no sac, and the distended loops are anteriorly located, with a point of convergence at a distance from the right iliac fossa, generally paramedian, retroumbilical. Incarcerated coves are most often of the small intestine, but the cecum and a dolichosigmoid may be associated. The characteristic feature is the medial and posterior displacement of the cecum and ascending colon, as the distended herniated loops develop in the right paracolic gutter. As in transmesenteric hernias, there is obviously no omental fat interposed between the distended loops and the abdominal wall ” (6).

They should be distinguished from “iatrogenic” trans-mesenteric, transmesocolic or retro-anastomotic internal hernias after surgery [8,9]. The clinical symptoms may be non-specific: they generally point to an acute small bowel obstruction epigastric pain [10]. Their diagnosis is usually made intraoperatively. However, with the development of medical imaging, in particular CT and MRI, preoperative diagnosis is now possible.

Therefore, “ it is essential to appreciate the different varieties of internal hernias. Indeed, the diagnosis of a bowel obstruction by internal hernia implies a perfect knowledge of the anatomical varieties involved. Several anatomical forms of internal hernias have been reported. The delayed diagnosis can invoke necrosis which is a fatal complication ” [11,12].

4. CONCLUSION

Any sudden-onset occlusive syndrome with dilated small intestines in a central position in the abdominal cavity should, in a subject with no history of surgery, even an elderly one, raise the possibility of a strangulated internal hernia.

Trans epiploic hernia is a rare but possible cause of acute bowel obstruction in adults. The presence of spontaneously reduced episodes of sub-occlusion can be an important argument for the diagnosis. Late diagnosis can lead to complications such as intestinal necrosis.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image

generators have been used during writing or editing of this manuscript.

CONSENT

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

ETHICAL APPROVAL

As per international standards or university standards 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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