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Acute Intestinal Occlusion: Think About Supra Bladder Internal Hernia

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Abstract **Case Report**

Internal hernia of the supravesical fossa is a rare cause of intestinal obstruction [1]. This pathology arouses great interest among radiologists and surgeons due to its diagnostic difficulty, even with the advancement of different imaging techniques, particularly computed tomography [2]. We present the case of a patient without a history of laparotomy who presented with acute intestinal obstruction. Computed tomography examination revealed a strangulated left supravesical internal hernia. Diagnostic confirmation was obtained by laparoscopic exploration.

Keywords: Acute intestinal obstruction, internal hernia, internal supravesical hernia.

INTRODUCTION

Internal hernia of the supravesical fossa is an unusual cause of small bowel obstruction11/7/2023 7:56:00 PM [3]. Rarely reported in the literature, it poses a diagnostic problem [4]. It is very often discovered during a complication, particularly in a picture of intestinal obstruction [1]. We report the observation of a patient with an internal supravesical hernia revealed by an occlusive syndrome.

PATIENT AND OBSERVATION

A 60-year-old man, with no previous surgery, admitted to the emergency department with diffuse abdominal pain associated with vomiting. It reports a stoppage of materials and gases for 5 days.

The clinical examination is marked by abdominal distension, absent transit and on abdominal palpation, diffuse pain without defense or contracture. The hernia orifices were free and the rectal examination was unremarkable. Unprepared abdominal radiography noted hail-like hydro-aerial levels.

An abdominal CT scan without and with contrast injection was performed and revealed distension of the small bowel loops at the hydroaeric level upstream of two areas of caliber disparity, visible at the level of the left supravesical fossa and coming into contact with the abdominal wall. There is also associated infiltration of nearby mesenteric fat with circumferential and regular thickening of the incarcerated loop, without associated parietal pneumatosis. An internal supravesical hernia has been suggested.

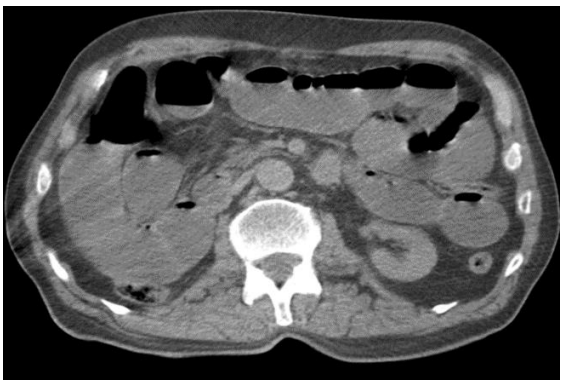

Figure 1: Abdominal CT scan reveals an obstruction of the small intestine with distension of the small bowel loops resulting from hydroaeric levels

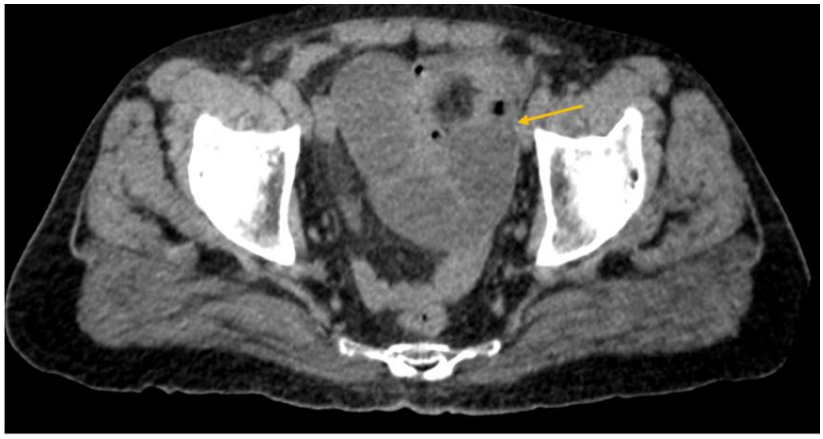

Figure 2: Abdominal CT scan reveals an obstruction of the small intestine with a transition zone (arrow) located in the left supravesical fossa coming into contact with the abdominal wall

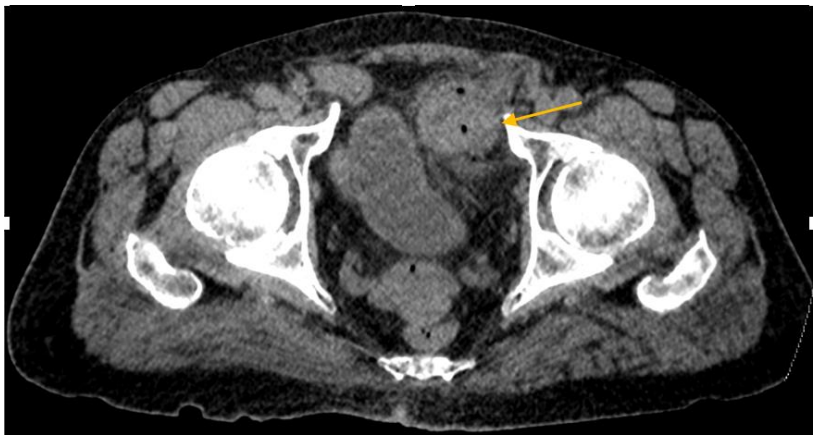

Figure 3: Abdominal CT scan revealing herniated intestinal loops in a sac-like arrangement (arrow) in the pre-bladder space, compressing the anterior wall of the bladder

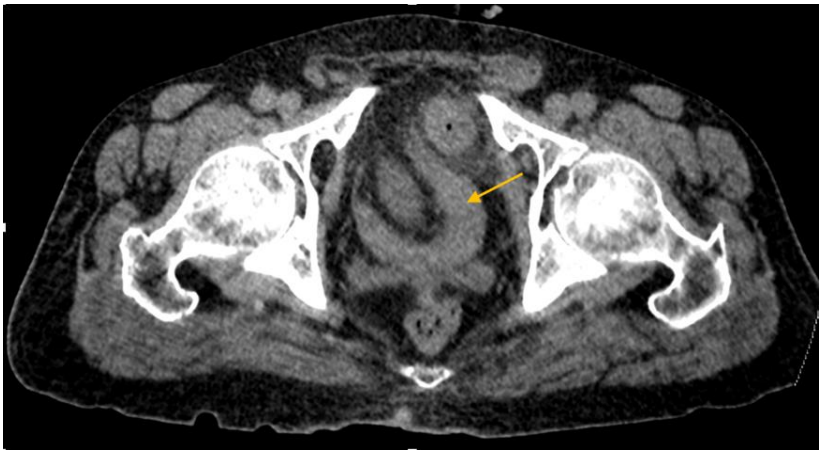

Figure 4: Abdominal CT scan revealing a supravesical hernia with intestinal contents located in the Retzius space, exerting a mass effect on the bladder, creating the "bull's horn" appearance (arrow)

The laparotomy performed made it possible to confirm the incarceration of a small bowel loop in a left supravesical fossa. The surgical procedure consisted of a resection of the hernia sac and the pre-gangrenous loop of the ileum, the viability of which was doubtful, so an end-to-end anastomosis was performed. The pocket was closed with stitches and the postoperative course was simple.

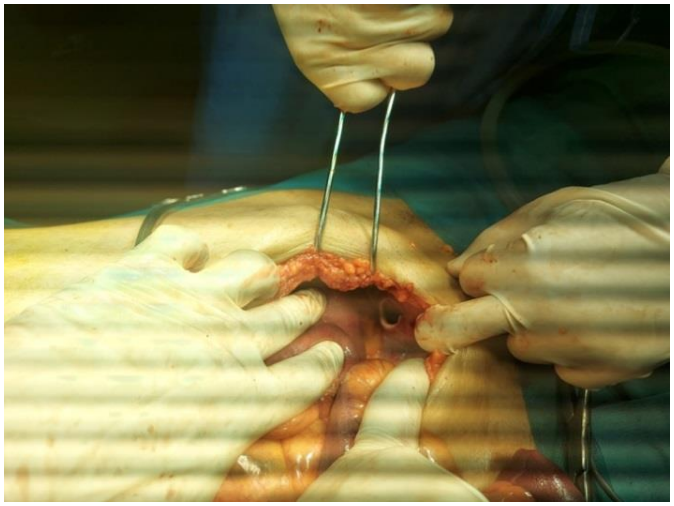

Figure 5: Intraoperative image of the hernia orifice at the supravesical fossa

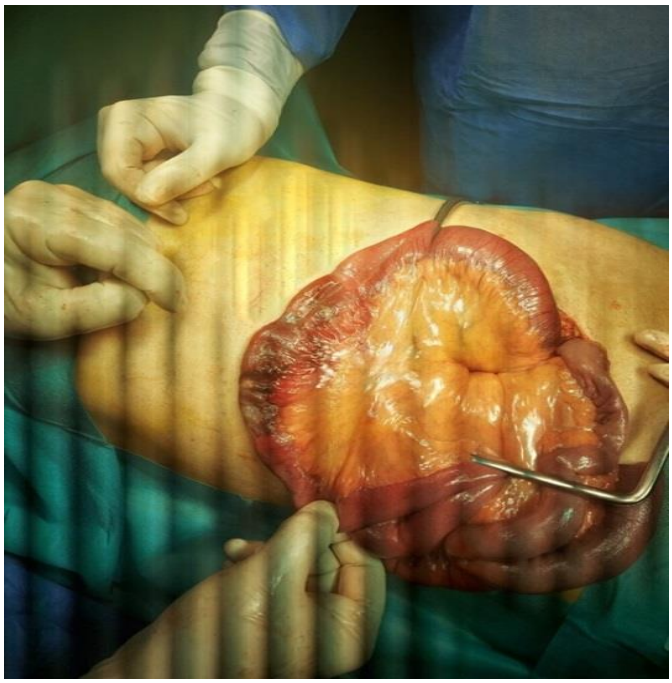

Figure 6: Intraoperative image of the necrotic intestinal segment

DISCUSSION

Supravesical hernia is an unusual type of hernia and its incidence remains difficult to assess [5]. Men over 50 are particularly affected [6]. It develops in a triangular area called the supravesical fossa delimited laterally and superiorly by the median umbilical ligaments (remnant of the urachus) and lateral (remnant of the left or right umbilical artery) and inferiorly by the peritoneal reflection going from the abdominal wall anterior to the dome of the bladder called the space of Retzius [7].

In the presence of the difficulty linked to the rarity of this type of presentation, the diagnosis is often made intraoperatively [4]. In our observation, the diagnosis of acute intestinal obstruction due to supravesical hernia was suggested on abdominal CT scan, bythe demonstration of herniated intestinal loops in a sac like arrangement at the level of the anterolateral part of the bladder and in the space of Retzius. They are responsible for a mass effect giving the bladder the appearance of a bull's horn [5, 7, 8].

Although the preoperative diagnosis remains unusual, some authors have also reported cases already mentioned on scan signs before surgical intervention [2-4]. The diagnosis was confirmed by surgical exploration. The majority of cases described in the literature underwent exploratory laparotomy [6].

Treatment of supravesical internal hernia involves releasing the intestinal obstruction and closing the hernia defect [9]. The favorable prognosis is mainly determined by the speed of diagnosis and management of the intestinal obstruction. Unfortunately, given the diagnostic difficulties, the intervention is often delayed with the consequence of the appearance of ischemia and

perforations of the herniated loops and, thus, a relatively high frequency of intestinal resections [4, 8, 10].

CONCLUSION

CT can be useful in the evaluation of bowel obstruction in a supravesical internal hernia, but diagnosis can be difficult due to the complex location of the hernia and its limited visibility on images. A comprehensive diagnostic approach, combining imaging, clinical data and other complementary tests, is necessary to achieve an accurate diagnosis

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