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Surgery

RICHTER'S TYPE FEMORAL HERNIA, A RARE ENTITY AND DIFFICULT DIAGNOSIS

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ABSTRACT The Richter hernia is a rare condition characterized by the incarceration or strangulation of the intestinal antimesenteric border through a small defect of the abdominal wall, being able to progress rapidly for necrosis and perforation. The Richter hernia is more frequent between the sixth and seventh decades of life, representing 5-20% of all hernia strangles and occurs mainly associated with femoral hernias. We report a case of imprisoned Richter's femoral hernia with signs of distress in the elderly male patient.

KEYWORDS : Femoral Hernia, Intestinal Obstruction, Herniorrhaphy, Mesentery

INTRODUCTION

Richter's hernia is a very uncommon clinical condition, more prevalent between the 6th and 7th decade of life, due to the existence of a defect in the abdominal wall characterized by pinching the antimesenteric edge of an intestinal loop, which exceptionally occurs in association with femoral hernias.1,2

The incarceration of the antimesenteric edge of the intestine predisposes to tissue ischemia due to herniation that puts pressure on the bowel wall, compromising blood circulation, which gives it a high risk of tissue necrosis, which, if not diagnosed and treated in a timely manner, can progress to perforation intestinal, acute peritonitis with abscess formation and enterocutaneous fistula, associated with a very high mortality rate, reaching 24% of patients.3,4

Only 10% of all confirmed cases of strangulated hernias were diagnosed as Richter's hernias, this condition usually presents unilaterally and can occur in different locations, such as splenic flexure, inguinal ring, crural, femoral, umbilical, obturator and incisional, in addition to also occurring in postoperative scars. 5,6

The terminal ileum is the segment most frequently involved, representing 6%-10% of all strangulated hernias with rapid progression to gangrene, and in this context, the rarity of the case described is notorious.3

Another relevant aspect refers to the initial symptoms: abdominal pain and discomfort, malaise and fever can contribute to the late diagnosis of Richter's hernia, since such symptoms are common to several abdominal pathologies. Regarding the signs of intestinal obstruction, it is relevant to highlight that they include diarrhea, abdominal distension, abdominal pain with a few days of evolution, weight loss and anorexia.3,5,7

Surgical treatment is always mandatory, with access via inguinotomy in cases without clinical abdominal repercussions or via laparotomy in cases of complications such as collection, abscess or fistulas. Given the various possibilities in relation to the treatment for Richter's hernia, it is important to mention that despite the challenges regarding the approach to be adopted after diagnosis, the dissemination of cases like this becomes essential to help with the earliest possible diagnosis with the intention to decrease mortality.8

CASE REPPORT

A 69-year-old male patient admitted to the intensive care unit of the service due to decompensated chronic renal failure for hemodialysis for severe uremia. In the past history, he had a history of uncontrolled arterial hypertension and uncontrolled type II diabetes mellitus. She started to present after 2 days of hospitalization, pain in the left iliac fossa accompanied by bilious vomiting and significant abdominal distension.

The patient evolved with a complaint of bulging in the left inguinal region with increased abdominal pain and cessation of gas and feces elimination 24 hours after the onset of symptoms.

On examination, he presented bulging in the left inguinofemoral region, irreducible to the digital maneuver, with intense pain at the site and evident phlogistic signs.

The biochemistry showed only a slight leukocytosis (14,810 cells/mm3). Abdominal X-ray showed signs of mild air-fluid level in the small intestine without identification of mechanical obstructive factor.

A computed tomography scan of the abdomen and pelvis was requested and showed a femoral hernia on the left with a neck of approximately 2 cm and incarceration of a small loop inside the hernia sac, compatible with a strangulated femoral hernia on the left. The patient was underwent surgical treatment with preservation of the imprisoned bowel, proceeded with femoral hernioplasty with placement of a femoral mesh plug.

DISCUSSION

Femoral hernia is a rarer entity than inguinal hernia and is often associated with obstruction, entrapment or strangulation, resulting in a

higher rate of complications, corresponding to less than 10% of hernias in adults, with the peak incidence in the range aged 50-60 years, with lethality between 17 and 21.4%.9

The differential diagnosis of femoral hernia includes lymphadenopathy, saphenous vein varicosity, pseudohernia, femoral artery pseudoaneurysm, and soft tissue tumors. The hernia sac typically consists of the small intestine or omentum, but there are unusual reported cases where the herniated structures are the cecum, appendix, colon, Meckel's diverticulum, ovaries, testicles, stomach and kidney.10

For the hernia to exist, as stated by Richter, it is necessary that the hernia orifice be large enough to incarcerate the intestinal wall, but small enough to prevent the protrusion of an entire segment of the intestine.11

The presence of a narrow hernia ring is a prerequisite for strangulation and compromised blood circulation, which results in ischemia and gangrene. Richter's hernias tend to progress more rapidly to necrosis than conventional strangulated hernias, this can be explained not only by the narrower ring of constriction that exerts direct pressure on the intestinal wall, but also by the anatomical peculiarity that, as a rule, it is the free border of the intestine opposite the mesentery with the predominance of terminal arterioles that is involved.

The insidious feature of Richter's hernia often leads to a late or even misdiagnosis due to the initial apparently indolent symptoms, with a primarily small hernia sac and sometimes scarce clinical findings.9

Initially, symptoms are vague, and only nonspecific signs such as abdominal pain, distension and vomiting may occur, and classical signs of intestinal obstruction are not expected. Clinical and radiological signs of small bowel involvement are present in only 10% of patients, and physical examination signs are almost always nonspecific.12

It is noteworthy that imaging tests such as radiographs, ultrasound (USG) and abdominal computed tomography (CT) are of great help in determining or confirming the diagnosis, however, they can be uncertain in incipient cases, as small intestinal segments are of difficult to visualize.5,13

Radiographs can detect signs of bowel distension, as well as thickening of the intestinal folds, in addition to identifying air or air-fluid level. The USG of the inguinal region plays an extremely important role in the evaluation of complications such as incarceration or strangulation and can also identify other possible pathologies in the hernia sac.5

However, computed tomography is the imaging exam that provides more accurate visualization, as it allows a reconstruction of the entire abdomen, being particularly decisive in the diagnosis of abdominal wall hernias, as it allows the distinction of its content from other possible abdominal masses and helps to identify complications such as obstruction, ischemia, necrosis and abscesses.5

Femoral hernias must be surgically repaired unless they are present against specific clinical indications. This recommendation is based on the experience that complications of entrapment, obstruction and strangulation are greater threats than the risks inherent in surgical correction.

CONCLUSION

Richter's hernia is a rare surgical entity. Complicated femoral hernias are particularly associated with high morbidity and mortality unless they are diagnosed early and operated on. Richter's hernia in a femoral hernia proved to be an extremely rare condition in the literature, surgery being the only treatment, and it should be done as early as possible to avoid morbidity and mortality.

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