

FEMORAL RICHTER HERNIA: A CASE REPORT AND LITERATURE REVIEW

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ABSTRACT

Richter hernia is defined as a partial hernial strangulation of the small bowel anti-mesenteric border. This clinical form has important diagnostic particularities such as a significant risk of intestinal necrosis and an absence of intestinal obstruction signs or palpable parietal mass. We report a case of a 72-year-old patient, gravida 6, and para 6 who consulted for abdominal pain evolving for 48 hours. An abdominal CT scan with contrast injection visualized a strangulated right femoral hernia containing the antimesenteric border of a small bowel part creating a Richter hernia confirmed by surgical exploration through an oblique inguinal incision. A McVay repair was performed. The postoperative course was uneventful. Richter's femoral hernia is a particular anatomic and clinical entity and represents a diagnostic challenge. A complete clinical examination is important to avoid diagnostic delay and the occurrence of complications. The treatment is surgical according to the contamination of the surgical field.

Keywords: CT scan; Femoral; Hernia; Necrosis; Richter.

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INTRODUCTION

Richter hernia is defined as a partial hernial strangulation of the small bowel anti-mesenteric border [1]. This clinical form has important diagnostic particularities such as a significant risk of intestinal necrosis and an absence of intestinal obstruction signs or palpable parietal mass. Its occurrence is facilitated by a narrow parietal defect, explaining its frequent occurrence in femoral hernias [2]. Indeed 90% of Richter's hernias are located in the femoral area [3]. Femoral hernia represents only 10% of strangulated external hernia explaining the rarity of Richter femoral hernias [4]. We report a case of femoral Richter hernia diagnosed with CT scan and surgical exploration.

CASE REPORT

A 72-year-old patient, gravida 6 and para 6, consulted for abdominal pain evolving for 48 hours. There was also vomiting without cessation of flatus and bowel movements. Examination of the abdomen found diffuse abdominal tenderness without meteorism. Examination of the hernial orifices did not find any palpable mass. Biology showed a hemoglobin level of 11 g/dl and a white blood cell count of 11,000 elements per mm³. Ionogram and serum creatinine were normal. An abdominal CT scan with contrast injection visualized a strangulated right femoral hernia containing the antimesenteric border of a small bowel part creating a Richter hernia (Figure 1). Surgical exploration through an oblique inguinal incision revealed a femoral hernia with a hernial ring of 0.5 cm. It contained a lateral portion of small bowel with ischemia (Figure 2).



Figure 1 : CT scan showing a right Richter femoral hernia under the inguinal ligament (red arrow) containing the anti-mesenteric border of small bowel (yellow arrow)

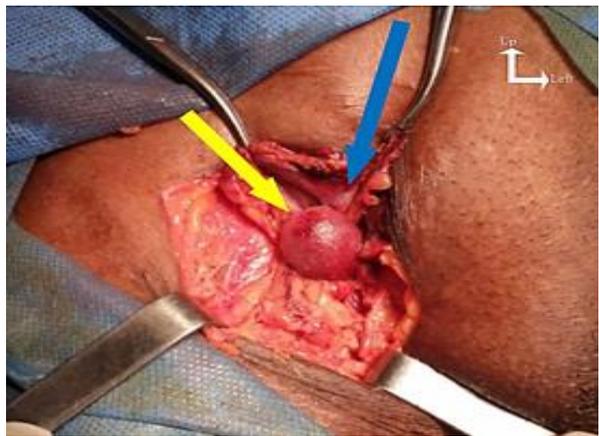


Figure 2 : Intra operative image of the right femoral Richter hernia after hernial sac opened (blue arrow) containing small bowel anti mesenteric border (yellow arrow)

It was realized a reduction with a recoloration of the bowel. A McVay pure tissue repair was performed. The post-operative course was uneventful. With a 2-year follow-up, there was no recurrence or chronic pain.

DISCUSSION

August Gottlob Richter made the first scientific description of Richter type hernia in 1778[5]. It represents an hernial strangulation of the small bowel anti-mesenteric border [1]. It can occur on all external hernias but remains more frequent at the inguinal and femoral areas. Richter hernia is more common in older female subjects. This was the case in our observation. This can be explained by the fact that femoral hernias, which are the primary cause,

are more frequent in this same population. Dieng et al. found in a series of 228 cases that all femoral strangulated hernia concerned only women [6]. Richter hernia can have a confusing clinical presentation. On the one hand, the swelling next to the hernial orifice is often small and can go unnoticed at the clinical examination. On the other hand, the possible absence of intestinal obstruction symptoms can cause delay in the diagnosis. In fact, the signs of intestinal obstruction are present in only 10% of cases [2]. This was the case in our patient who presented neither an inguinal mass nor symptom of bowel obstruction. Thus, the complete examination of the abdomen and hernial orifices remains mandatory, especially old patients consulting for abdominal pain and vomiting [7]. For the diagnosis, computed tomography is essential. It confirms the hernia and its location to properly plan the surgery. It also allows to look for bowel ischemia signs to guide the best surgical approach. The diagnosis and treatment of femoral hernias must be early because the risk of intestinal necrosis is particularly high. A multivariate analysis on strangulated femoral hernias found that a long duration of the symptoms (more than 3 days) increase the risk of intestinal necrosis by 2 [8]. The complications can occur early, especially in elderly subjects with medical conditions [9]. The mortality rate remains high around 17% explained by the high rate of necrosis and intestinal resection due to late diagnosis [5]. The treatment is surgical, but the surgical technique depends on the degree of contamination of the surgical field. The pure tissue repairs such as McVay technique keep their place with the context of emergency and intestinal resection [10]. In our patient, a pure tissue repair without intestinal resection was enough to have a good evolution.

CONCLUSION

Richter femoral hernia is a particular anatomic and clinical entity and represents a diagnostic challenge. Imaging and surgical exploration can confirm the diagnosis. A complete clinical examination is important to avoid diagnostic delay and the occurrence of complications. The treatment is surgical according to the contamination of the surgical field.

Conflict of Interest:

There is no conflict of interest to declare
Patient consent not needed.

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