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Case Report

Strangulated Right Femoral Hernia Containing a Necrotic Epiploicae Appendix

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Abstract

The contents inside the femoral hernial sacs vary and the epiploic appendages of the colon are one of the rarest types. The first case was reported in 1905 for a femoral hernia by Riedel. Despite advanced imaging tools, the contents of the hernia sac cannot always be accurately identified preoperatively.

The surgical management does not differ; however, a careful examination of the content must be performed before its reintroduction into the intra-abdominal space.

We present the case of a 52-year-old patient, with strangulated right femoral hernia. The abdominal scan reveals a strangulated right femoral hernia with an epiploic appendage emanating from a sigmoid loop.

Keywords: Femoral hernia; Appendices epiploicae; Surgical repair

Introduction

In most cases, the content of a strangulated femoral hernia is the small bowel loop or a part of the major omentum. Other structures can also be found, such as the colon, vermiform appendix, urinary bladder, and others [1]. Appendices epiploicae in femoral hernias are rare, with very few cases reported in the literature.

It was first described in 1543 by Vesalius [2], and they are small adipose pouches that protrude from the serosal surface of the colon [3].

The first case was reported in 1905 for a femoral hernia by Riedel and separately in 1906 for an inguinal hernia by Serve and Muscatello [4].

We present a case of a patient with a strangulated right femoral hernia containing necrotic appendice epiploicae.

Case Report

A 52-year-old patient, with no particular medical history, presenting in the past 5 months a painless, reducible right femoral hernia. It was impulsive to cough initially, without inflammatory signs. However, it became painful, irreducible, and non-impulsive to cough 5 days before her admission, with no reported transit disorders or vomiting.

During the physical examination, the patient's vital signs were stable. Abdominal examination revealed a painful, irreducible mass of 2 cm in the right femoral area, while other hernial orifices were free. An abdominal scan was performed, revealing a right femoral parietal defect with a 14 mm diameter collar. it showed also an omental content, within which a well-limited rounded structure with a fatty component was identified, measuring 20 mm in diameter. This imaging suggested a strangulated right femoral hernia with an epiploic appendage emanating from a sigmoid loop.

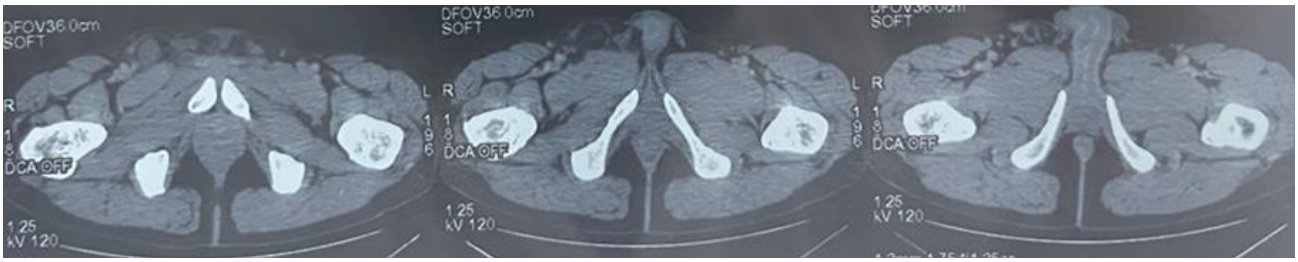

Figure 1: CT scan showed a right femoral hernia.

On the biological assessment, the patient presented leukocytosis of 11,440/mm³. The patient underwent emergency surgical treatment under general anesthesia. Through a right inguinal incision and after the dissection of different structures, opening the hernia sac revealed its contents—a necrotic epiploic appendage—which was resected after controlling its base with a Vicryl knot 2/0. The sigmoid colon was pulled and inspected through the incision. The repair of the femoral hernia was carried out using the Mac Vay technique.

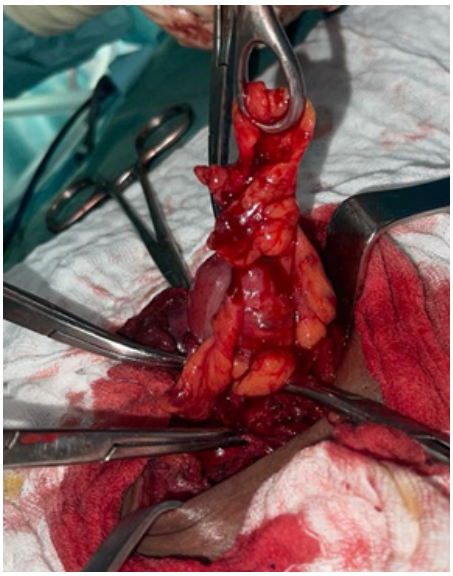

Figure 2: Peroperative image of the right femoral hernia and its content.

Discussion

A femoral hernia is an uncommon, acquired condition, reported in less than 5% of all abdominal wall hernias, with a female-to-male predominance of 1.8:1. It is twice as common in parous women as in non-parous women. Approximately 60% of femoral hernias are found on the right, 30% on the left, and 10% bilaterally [5].

The contents inside the hernial sacs vary, they can consist of certain parts of the colon, vermiform appendix, urinary bladder, ovaries, lipomas, and other tissues. However, epiploic appendages of the colon are one of the rarest types of hernial content, having been described by only a few [6].

Epiploic Appendages (EA) are small adipose pouches protruding from the serosal surface of the colon. They consist of peritoneum filled with fat and are situated along the colon, mainly in the transverse and sigmoid parts but are absent in the rectum. Upon visual inspection, they are lobulated masses of pericolic fat ranging in size from 2 to 5 cm in length and 1 to 2 cm wide [3]. Although their function is uncertain, EAs have been reported to assist in colonic peristalsis and colonic absorption, in addition to having omentum-like immunity-related functions [7].

Incarceration within a hernia is a rare cause of secondary torsion. EAs may be twisted around an adhesion when a colonic segment is incarcerated within the hernia. On the other hand, an already inflamed appendix may enter the hernia sac and cause incarceration. It is hard to reveal the exact mechanism, as in the present case, but the treatment does not differ [8].

Despite advanced imaging tools, the contents of the hernia sac cannot always be accurately identified preoperatively [9].

The contents of the hernia sac may be reduced to the abdomen during anesthetic induction or surgery, in which case laparotomy may be necessary to observe and check the contents of the sac. While laparotomy increases the risks of postoperative wound infection and incisional hernia, failing to notice ischemic or necrotic bowel contents by not performing laparotomy will have serious postoperative consequences [9].

Conclusion

In conclusion, epiploic appendagitis is a rare continent of the femoral hernias. While it may not be evident in imaging exploration, the definitive diagnosis is typically made during peroperative exploration. However, the surgical management remains the same, with the exception of ensuring control of the base of the epiploic appendage.

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