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Case Report

Spigelian hernia case report and review of literature

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ABSTRACT

Spigelian hernia is rare and accounts for less than 0.1% of abdominal wall hernias. It is often diagnosed at the complication stage. Authors report the case of a 48-year-old obese patient who had a painful swelling of the right iliac fossa. Morphological examination data were in favour of a strangled spigelian hernia and surgical exploration had shown a hernial sac with epiploic contents with a narrow collar. It was performed a resection of the retracted epiploon with simple raphy. The postoperative course was uneventful. Diagnostic and therapeutic difficulties are discussed through a literature review.

Keywords: Occlusion, Spigelian hernia, Surgery

INTRODUCTION

Spigelian hernias are rare and represent 0.1% of hernias.[1] The pathogenesis often involves a dehiscence of the transverse and internal oblique muscle aponeurosis.[2] Most of Spigelian hernias occur in the lower abdomen where the posterior sheath is deficient, It is also called "spontaneous lateral ventral hernia" or "hernia of semilunar line".[3] It is asymptomatic in 90% of cases and its positive diagnosis is radiological. The most common complication is hernia strangulation, which causes acute intestinal occlusion.[4]

As the incarceration rate of spigelian hernia is very high, prompt surgery should be performed.[5] Authors report a case of strangulated Spigelian hernia in a 48-year-old man diagnosed with abdominal computed tomography (CT) scan. Through this observation and a review of the literature, the aim of work is to highlight the diagnostic difficulties and the various therapeutic modalities of this pathology.

CASE REPORT

Obese man of 48 years old, presented with brutal appearances of abdominal pain in right lower quadrant evolved for 12 hours before associated with vomiting. Clinical examination found an apyretic patient, with mobil, firm and sensitive mass of 5 × 3 cm located in the right lower quadrant. The rest of the examination was normal. Biologically had hyperleukocytosis 12,000 white blood cells/ml. The abdominal ultrasonography suspected Spiegel hernia, the diagnostic confirmation was obtained by the abdominal CT scan, which showed muscle dehiscence in the sub umbilical level at the semilunar Spigelian line with the hernia sac containing epiploon (Figures 1). He underwent emergency surgery. Surgical exploration had found a spigelian hernia containing suffering epiploon, and treatment consisted of a resection of the suffering epiploon with a parietal raphie. The postoperative course was uneventful. The patient had a favorable outcome for 2 years without recurrence.

Figure 1: Abdominal CT scan. Presence of an interpararietal hernial sac, within the external oblique muscle and outside the muscle internal oblique.

DISCUSSION

Spigelians hernias are rare.[1,4] They correspond to the protrusion of a peritoneal sac through an acquired or congenital orifice of the spigelian line.[1] The semilunar line was first described by Adriaan van der Spiegel in 1645, which corresponds to the outer lateral junction of the right abdomen muscles of the large muscles aponevroses.[4,6] Spigelians hernias occur at any age with peaks between 40 and 70 years old. They affect both women and men.7 It is most often encountered below the umbilic by dehiscence of transverse aponeurosis and internal oblique muscle which appear to be weaker in the marked line 6 (Figure 2).

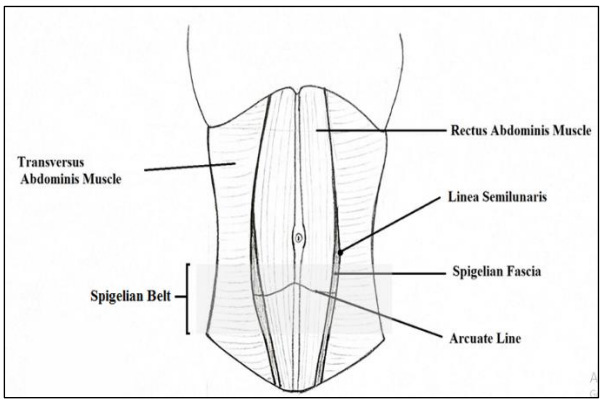

Figure 2: Anatomical diagram showing the spigelian belt.

There are predisposing factors such as intra-abdominal hyper pressure secondary to morbid obesity, multiple pregnancies and chronic cough. Rapid weight loss in obese patients can also play a role.[7] In most cases, the hernia sac contains epiploon, hail, caecum, appendix or sigmoid.[4,8] Some authors find more atypical content such as stomach, gallbladder, diverticule of Meckel, an ovarian, a uterine myoma or an endometriosis nodule.[1] The clinical diagnosis of spigelian hernia is often made difficult by obesity, either in the case of a large hernia protruding under the skin that can be confused with a lipoma, or when the hernia is small, it is hardly palpable as in the case of authors observation. It is estimated that around 50% of patients with spigelian hernia did not have a proper pre-operative diagnosis.[9] Ultrasound and especially CT scans are useful for diagnosis.[1] They objectify the hernia sac between the external and internal oblique muscles, as well as the continuity solution at Spigelian line level.[4,8] Spigelian hernia treatment is surgical, usually by a lateral surgical approach.[1] The median laparotomy is indicated only in the case of herniary strangulation, allowing easier manipulation of hernial content and full exploration of the abdominal cavity.[4,8] Patient had an elective surgery. The surgical exploration had found a suffered eppiploon that was resected. A simple raphie of hernia has been made. Currently, the coelioscopic approach is a new way of treating hernia and putting a mesh if the local state permits it.[10]

CONCLUSION

Spigelian hernia is rare, often overlooked and diagnosed at the strangulation stage. Due to the improvements in medical imaging, the diagnostic can be carried out preoperatively allowing adequate care. The choice of surgical treatment depends on the surgeon's preference. The laparoscopy is a new approach to the classic way.

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