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Case Report

Bilateral Spiegel hernia in a young male patient – a case report

Hérnia de Spiegel bilateral em paciente jovem masculino - um relato de caso

Bárbara Citelis Silva Vargas[1], Kelli da Silva Gonçalves[1], Rodrigo da Costa Amil[2]

1 Medical Students, Faculdade de Medicina de Campos (FMC), Campos dos Goytacazes, RJ, Brazil.
2 General Surgeon, Plastic Surgery Resident at Hospital Naval Marcílio Dias, Rio de Janeiro, RJ, Brazil.
3 General Surgeon and Liver Transplant Specialist, Itaperuna, RJ, Brazil.
Corresponding Author: Bárbara Citelis Silva Vargas
Contact: barbaracitelis@hotmail.com

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ABSTRACT

Spigelian Hernia accounts for 1-2% of all anterior abdominal wall hernias, being considered a rare condition. The Spigelian zone, the site of abdominal wall defect, is located between the semilunar line and the lateral edge of the rectus abdominis muscle, just below the arcuate line of Douglas and generally above the superior epigastric vessels. The information in this report was obtained through a review of medical records and photographic documentation, with the Informed Consent Form (ICF), containing data from the physical examination and results of complementary exams, documentation of diagnostic methods, and a literature review. This article describes a case of Spigelian Hernia in a 25-year-old male patient, whose only clinical manifestation was pain in the left iliac fossa. With the proposed surgical treatment, an open herniorrhaphy was performed without intestinal resection. The description of this case is justified by the difficult diagnosis due to the nonspecific and scarce symptoms, diversity of differential diagnoses, and possibility of complications.

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RESUMO

A Hérnia de Spiegel representa 1-2 % dentre todas as hérnias de parede anterior, sendo considerada uma doença rara. Entre a linha semilunar e a borda lateral do músculo reto do abdome, logo abaixo da linha arqueada de Douglas e, geralmente, acima dos vasos epigástricos superiores, é localizada a zona de Spiegel, local de defeito da parede abdominal. As informações contidas neste trabalho foram obtidas por meio de revisão do prontuário e registros fotográficos, com o Termo de Consentimento Livre e Esclarecido, contendo informações do exame físico e resultados de exames complementares, registro dos métodos de diagnóstico e revisão da literatura. O presente artigo descreve um caso de Hérnia de Spiegel em jovem masculino de 25 anos, cuja a única manifestação clínica era dor em fossa ilíaca esquerda. Com o tratamento cirúrgico proposto, foi realizada uma herniorrafia aberta sem ressecção intestinal. A descrição deste caso justifica-se pelo diagnóstico difícil devido à sintomatologia inespecífica e escassa, diversidade de diagnósticos diferenciais e possibilidade de complicações.

INTRODUCTION

Spigelian Hernia is defined as the protrusion of preperitoneal fat or the peritoneal sac due to an anatomical alteration in the Spigelian zone[1]. Due to its location, it is often difficult to diagnose. The irregularity is located in the transversalis fascia, where the layers of the 'Spigelian aponeurosis' are weakest, which occurs due to the musculoaponeurotic transition, located lateral to the rectus muscle, and the internal oblique and transversus abdominis aponeuroses run parallel below the umbilicus[2]. The hernia may begin as a division in the fascial layers, allowing the projection of extraperitoneal fat through them. Hernial defects are generally small and may present with pain for some time before they can be detected.

As hernias increase in size, they become easily palpable and develop a peritoneal sac, allowing for diagnosis and surgical treatment[3]. The objective of this work is to describe a case of bilateral Spigelian Hernia at São José do Avaí Hospital, in Itaperuna (RJ), presenting the clinical aspects, diagnosis, surgery, and postoperative outcomes. This case report received approval from the ethics committee of the Faculty of Medicine of Campos, under CAAE 75822523.0.0000.5244. The approval opinion number for this is 6.687.061. This manuscript was translated with the assistance of ChatGPT, an AI language model de-veloped by OpenAI.

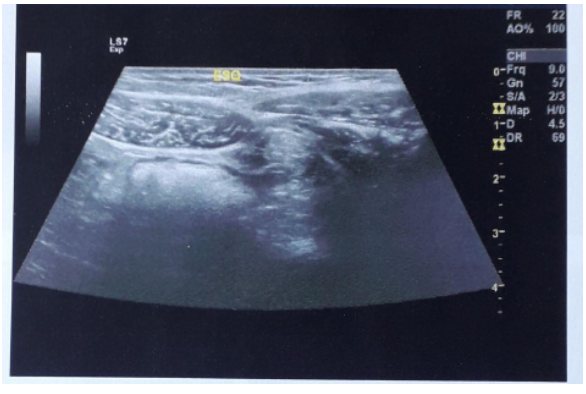
CASE REPORT

A 24-year-old male patient, with no comorbidities, presented to the general surgery clinic reporting intense stabbing pain in the left iliac fossa region, both at rest and with movement, without other complaints, such as changes in bowel function or edema. The patient mentioned having undergone surgery for correction of a Spigelian Hernia in the right iliac fossa five years prior. In light of this, an abdominal wall ultrasound (US) was performed (**Figure 1**) for investigation and diagnostic clarification.

For the repair, open herniorrhaphy was recommended. During surgery, a transverse incision was made in the left iliac fossa (LIF) area, with opening of anatomical planes, where an unincarcerated hernia sac and weakening of the aponeurosis of the rectus abdominis and transversus muscles were identified. The hernia sac was then reduced by invagination, using 0 Vicryl suture for repair, reinforcement of the wall through the placement of a 15x15 cm polypropylene mesh, and complete layered closure. Finally, intradermal suture with 4.0 Monocryl thread was performed to close the incision.

In the postoperative period, the patient recovered well and was discharged on the first day. The patient remains stable, with no signs of recurrence or late complications, eight years after

1A



1B

Figure 1. Computed tomography of the skull (axial slice) of the index patient, showing a hyperdense image in the left putamen (A) and a hyperdense image in the left putamen.

the right-sided Spigelian Hernia correction surgery and three years after the left-sided correction surgery.

DISCUSSION

Spigelian Hernia was described by Klinkosch in 1764[4], with approximately 1000 cases reported, and is even rarer in its bilateral form[1]. It is also shown that the incidence is higher in women between the 4th and 7th decades of life. Its development is associated with increased intra-abdominal pressure and weakening of the abdominal wall, being multifactorial and encompassing several factors. The patient in question had a previous abdominal incision due to a contralateral Spigelian hernia, which predisposes him to the condition.

The clinical presentation is often non-specific, and the lack of medical experience with this pathology frequently leads to a delayed diagnosis[4]. Typically, patients present with localized pain and/or swelling[3]. In the present case, the only clinical manifestation presented by the patient was intense pain.

Ultrasonography is the first choice for diagnostic methods, but computed tomography can also be used. Differential diagnoses include: hemangiomas, fibromas, sarcomas, lipomas, desmoid tumors, metastases, pseudo-herniations, other abdominal wall hernias, myotendinitis, adipose dolorosa, seromas, hematomas, and parietal abscesses[2, 4, 5]. Due to the numerous differential diagnoses, imaging examination is essential to reach a definitive diagnosis.

The treatment of Spigelian Hernia necessarily requires surgery, and due to its rarity, there is still no best surgical technique established for its correction[1]. Currently, the IPOM technique, 'intraperitoneal onlay mesh' is considered the most popular repair; however, other repair methods, such as extra-peritoneal laparoscopic treatment (TEP) and transabdominal preperitoneal (TAPP), may also be used, with TAPP offering the best visualization of the hernia[2]. In the present case, open herniorrhaphy with a transverse incision followed by primary repair was the technique employed.

Due to timely diagnosis and treatment, the postoperative outcome was satisfactory; the patient progressed well and remained free of abdominal recurrence eight years after the right-sided Spigelian Hernia correction and three years after the left-sided correction.

Therefore, it is essential that Spigelian Hernia be considered a differential diagnosis in abdominal diseases.

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