

Recurrent Spigelian Hernia: case report

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Abstract: The protrusion of adipose tissue, peritoneal sac or abdominal viscera in the anterolateral region of the abdomen can configure the so-called Spigelian hernia. A 53-year-old patient with comorbidities is admitted for reoperation of Spiegel's hernia. Aging and the presence of obesity, multiparity and previous surgery may have predisposed the appearance of this type of hernia. For recurrence, obesity may have been a contributing factor, although factors related to the surgical procedure and the hernia itself should also be considered. Spiegel's hernia is a rare abdominal hernia whose treatment is surgery, bearing in mind the risks of recurrence and the possibilities of mitigating them.

Keywords: Spigelian hernia; Abdominal hernia; Ventral hernia; Recurrence; Case report.

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1. Introduction

Spiegel's hernia is a rare type of abdominal wall hernia, which incidence ranges from 0.12 to 2% of all abdominal hernias [1, 2]. It is characterized by the protrusion of adipose tissue, peritoneal sac or abdominal viscera between the semilunar line and the lateral border of the rectus abdominis muscle [2, 3]. The most affected age group is from 40 to 70 years and the distribution of the disease is similar in both genders [1], although a small female predilection has been described [4]. Usually, patients present with mild symptoms, such as abdominal pain, which can be associated with a lump [1]. Spigelian hernia may be treated through open or video laparoscopic surgery [2]. Considering the rarity of this condition, its recurrence rate is not known. Here, we discuss a recurrent Spigelian hernia to bring data on possible risk factors and appropriate management of the recurrence.

2. Case Report

A 53-year-old female patient was admitted to the hospital for repair of recurrent Spigelian hernia and post-cholecystectomy incisional hernia. She reported the onset of the condition four years ago with increased abdominal volume and burning pain in the left inguinal region, which got worse whenever she exerted herself physically. Surgical repair of Spiegel's hernia and cholecystectomy were performed 1 year after the onset of symptoms, and no signs of colon inflammation were identified during the surgery. The patient relates the early return to physical activity to hernia recurrence and the appearance of an incisional hernia at the site of access to the gallbladder (Kocher incision). Multiparous, obese (BMI: 39.36 kg/m²), with systemic arterial hypertension, and hypothyroidism on regular treatment, she reported hysterectomy more than 10 years before. She denied diabetes mellitus, history of ascites, or smoking.

On admission, the patient presented the following vital signs: blood pressure 140/90 mmHg, heart rate 90 bpm, respiratory rate 15 bpm, and oxygen saturation 98% in room air. Abdominal examination revealed a flaccid, depressible, peristaltic, and painless

abdomen, with a hernia in a Kocher incision and a recurrent Spiegel hernia on the left. During surgery, both hernias were reduced, defects corrected, and polypropylene meshes fixed (Figure 1A to 1C). The procedure was uneventful, and the patient was discharged home.



Figure 1. Reoperation of Spiegel's hernia. A. Complete and dissected hernia sac. B. Open hernia sac, exposing its contents (small bowel loops). C. Defect repair with fixation of a polypropylene mesh to the aponeurosis.

3. Discussion and conclusion

Even though it is rare, Spiegel's hernia is a diagnosis that must be kept in mind when investigating abdominal wall hernias. Predisposing factors include aging, previous surgery, and increased intra-abdominal pressure secondary to obesity, multiparity, ascites, chronic cough, and chronic obstructive pulmonary disease, among others [3,5]. In this report, we describe the case of a patient in her 50th decade of life, obese, multiparous (two cesarean deliveries), and with a previous hysterectomy, which corroborates the literature.

Affected individuals may be asymptomatic or present with pain and a palpable mass in the anterolateral region of the abdomen [1,6], as occurred in this case. Imaging tests such as ultrasound and computed tomography are useful for diagnostic confirmation [3].

The treatment of choice is surgery, which can be open or laparoscopic, by primary suture or placement of synthetic mesh, the latter having a lower rate of recurrence [7]. In the reported case, the patient had undergone a first open surgery three years ago, with mesh placement in another public hospital and, two months after the surgery, she had performed high-intensity physical activity (CrossFit) resulting in abdominal pain. According to her, she promptly stopped physical activities at that time, and, in the following months, she had noticed a progressive abdominal bulge in the surgical incision.

Considering that this is a rare hernia, there is not enough literature to establish the rate of recurrence of Spiegel's hernia. However, several studies demonstrate factors related to the recurrence of abdominal hernias, especially inguinal hernias [8-10]. Factors associated with recurrence of hernias can be divided into 1) related to the procedure, such as the surgeon's experience, material used and infection; 2) related to the patient, such as comorbidities, habits and family history; and 3) related to the hernia itself, as location and size [9]. In this case, the patient had obesity, which is a risk factor. On the other hand, despite relating physical exertion during the postoperative period with hernia recurrence, the literature does not point to this relationship [9,10].

Due to the COVID-19 pandemic, the surgery took place in 2022. A new correction of the defect and placement of a polypropylene mesh was performed, without recurrence to date.

4. Conclusions

In the presence of pain or bulging in the anterolateral region of the abdomen, Spiegel's hernia should be included among the diagnostic hypotheses and the factors associated with its recurrence should be minimized whenever possible.

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