

Spigelian hernia: a case report

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ABSTRACT

Spigelian hernias constitute a minute fraction of all abdominal hernias. In this monography, we present a case report of this relatively seldom seen phenomenon which some

general surgeons never get to see during their medical career.

Keywords: Hernia, Spigelian hernia, incarcerated

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INTRODUCTION

Spigelian hernias are rare variations of ventral hernias - they constitute approximately 1% (range 0.1-2%) of them [1]. Developing via the Spigelian fascia, thus called lateral, these types of hernia tend to go undetected and peak at about 50-60 years old [2].

CASE PRESENTATION

An 84-year-old female complaining of pain in the left iliac fossa was admitted to the Department of General and Gastroenterological Surgery. The woman underwent appendectomy as well as bilateral inguinal hernia repair over 20 years back, she is post-MI type II (IX 2018) with thyrotoxicosis and circulatory insufficiency. On admission the patient weighed 70 kg, having lost 4kg over the last six months, BP 140/80, RR 65bpm, exhibits dementia-

like behavior. The woman takes Acard, Thyrozol, Pantoprazol, Tulip, Milurit and iron supplements on a daily regimen. On physical examination, the abdomen was soft, painful on palpation in the region of the left iliac fossa, with a 14x7 cm mass in the aforementioned region and weakened peristalsis. Per rectum - remains of black stool (history of iron supplementation). No otherwise pathological findings in the rest of the examination. Laboratory findings revealed anemia (RBC – $3.49 \times 10^6 / \mu\text{l}$, HGB – 11.4 g/dl) and hyperglycaemia - 111 mg/dl. Urea level was below norms. Liver enzymes and C-reactive protein (CRP) within normal limits. Abdominal radiogram demonstrated fluid levels in left lumbar region. Abdominal USG revealed hernia in the lower left abdominal quadrant with incarcerated, thickened intestinal loops surrounded by fluid and showing no signs of effective peristalsis. The patient underwent abdominal hernioplasty with partial removal of necrotic fragments of greater omentum and liberation of intestinal loops from massive adhesions (Fig. 1).

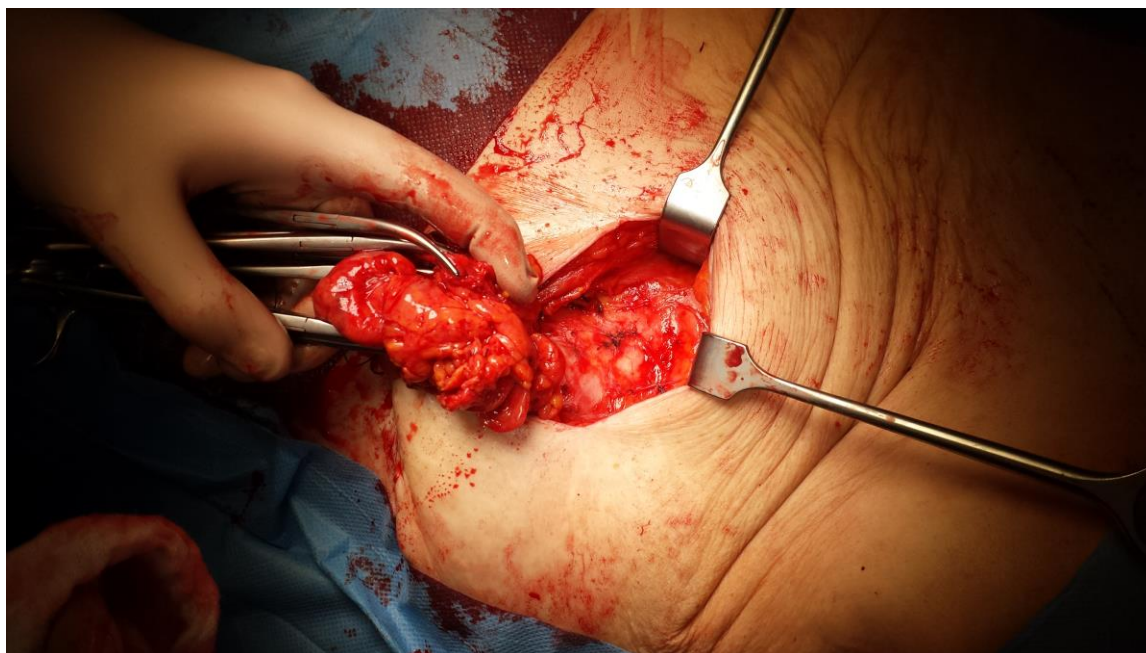


Figure 1. Intraoperative photo- incarcerated Spigelian hernia

UltraPro mesh was used for closure of the hernia gate due to frailty of fasciae. Cefazolin was used for perioperative antimicrobial prophylaxis. Postoperative period without complications with audible peristalsis 2 days post-surgery as well as flatulence and stool on the third and fourth day

respectively. 5 days after the surgery the woman was put back on full-fledged diet. The patient was discharged on the sixth day of hospital stay with prescribed anticoagulant – Enoxaparin sodium 40mg once daily sc. and nonsteroidal anti-inflammatory drugs.

DISCUSSION

Wroński and colleagues described a similar case [3] in 2012 where a 60 year old female presented with a 15 cm mass on the right side and a 2-day history of pain, nausea and vomiting. The patient was successfully cured with an open hernioplasty. The difference, however, lies in the laboratory findings – their patient had a leukocytosis ranging $18.3 \times 10^3/\mu\text{l}$, which is a rather popular finding with an incarcerated hernia [3,4] with no other abnormalities whereas in our case the white blood cells are in the normal range throughout the whole hospital stay with no other acute state indicators significantly altered. Such is the case with the prevalence of Spigelian hernias – up to 60% present with pain whereas up to a third of them have a palpable mass in the abdomen [3,4] and there tends to be a wide variety of laboratory abnormalities with no fixed pathognomonic alterations in them.

Spigelian hernias are considered by many an ailment of the elderly, and with a good reason, peaking between 4th and 6th decade [2], these defects usually go undetected just to the point where either the hernia sac becomes clearly visible and so for cosmetic reasons, or complications arise. However, such peak incidence does not necessarily mean that that the said hernia started developing just a moment earlier. Webber et al. in their monography *Contemporary thoughts on the management of Spigelian hernia* [5] point out that this state could actually be more mainstream in its incidence than the majority of general surgeons think. They proposed 3 clinical stages in which the first one has no peritoneal sac and tends to develop in younger patients – as young as 30 years old. As natural history progresses the disease turns into stage 2. and 3. which are more complicated, do have peritoneal sacs and eventually prove too difficult to mend laparoscopically. So was the staging of our patient, having developed the disease to a point of emergency where the content of hernia sac becomes not only strangulated but massively inflamed and covered with diffused adhesions.

Computed tomography (CT) is now seen as the best way to image the hernia, allowing a better identification of bowel strangulation and the content of the sac [5-7]. However, since CT is still an unaffordable luxury in some parts of the country and world, an ultrasound is considered a worthy and proven method of imaging with a sensitivity and positive predictive value (PPV) of 90% and 100% respectively [6].

Nowadays, there is a positive trend of dealing with these types of hernia with a minimally invasive method. It has been suggested that the choice method of surgery, whether open or laparoscopic,

should rely on the experience of a surgeon and the stage of illness [5]. Since this variation of ventral hernia is fairly infrequent so are the means of learning the minimally invasive approach to this particular ailment. Moreover, considering the fact that majority of the cases present in late age and stages 2. and 3., it makes it all the more difficult to master the laparoscopic hernioplasty at such complex point of progression of this variation of hernia. Putting aside the complexity of available cases, even surgeons experienced in overall laparoscopy will have just a handful of occasions to have a go and so it should not surprise anyone that majority of cases are still done with an open approach and a few cases exist where the surgery underwent a conversion because there was no visible defect in keyhole approach [5]. It should be noted that while cases on the ER usually present as an acute state [4,7], with patients often being rushed to the surgery with an on-call surgeon at the site and not referred to a bigger, more specialized and/or experienced centers - majority of these morbidities are fixed on a scheduled basis.

CONCLUSIONS

The Spigelian hernias are beginning to emerge as not barely a disease appearing in the elderly but rather an underdiagnosed, latent defect, one could say - an incidentaloma, originating in younger age and silently developing until the point when they become symptomatic, lowering the quality of life.

Conflicts of interest

The authors declare no conflict of interest.

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