

Spigelian hernia associated with strangulation of the small bowel

S.N. Deshmukh, S.P. Jadhav, A.G. Asole

Dr. Vaishampayan Memorial Government Medical College, Solapur, Maharashtra, India

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Introduction

Spigelian hernias are rare abdominal wall hernias occurring in approximately 0.2% of patients. [1] Because of its rarity, here we present a case of spigelian hernia associated with strangulation of the small bowel.

Case Report

A 58-year old female presented to the emergency department with a 48 hour history of right lower quadrant abdominal pain accompanied by nausea, bilious vomiting, abdominal distention and constipation. On admission she was haemodynamically stable. Physical examination revealed a palpable tender, irreducible mass approximately 8 x 6 cm in the right lower quadrant, midway between the umbilicus and the pubis in the mid-clavicular line. Digital rectal examination was normal. Laboratory parameters were within normal limits except mild leukocytosis. CT scan of abdomen showed right sided spigelian hernia with small bowel obstruction. (Figure 1). Emergency surgical exploration revealed spigelian hernia with gangrene of the segment of small bowel (Figure 2) Resection of gangrenous segment of ileum with primary anastomosis was performed. Herniorrhaphy was performed by closing fascial defect, approximately 3 cm in diameter with interrupted monofilament nonabsorbable suture. Post operative recovery was unremarkable.

Discussion

Spigelian hernia is named after Adriaan van Spieghel,

Correspondence: S.N. Deshmukh
E-mail: santoshkumarndeshmukh@gmail.com

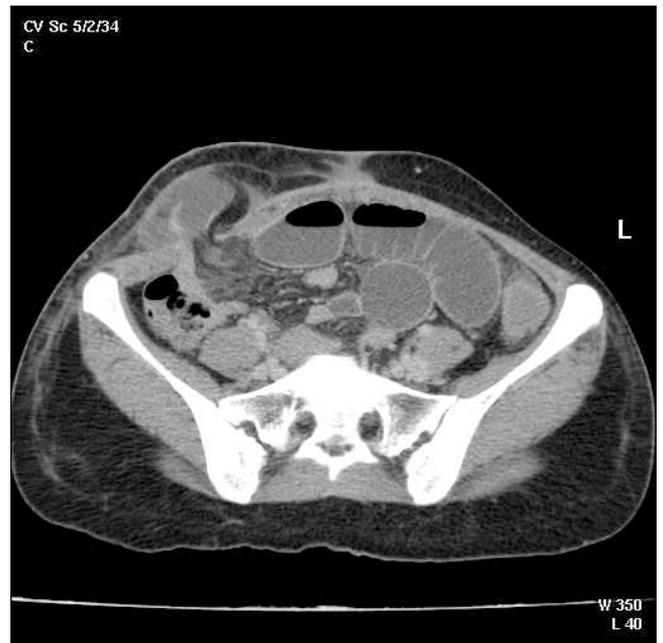


Figure 1. Axial abdominal CT scan showing right sided Spigelian hernia with small bowel obstruction.

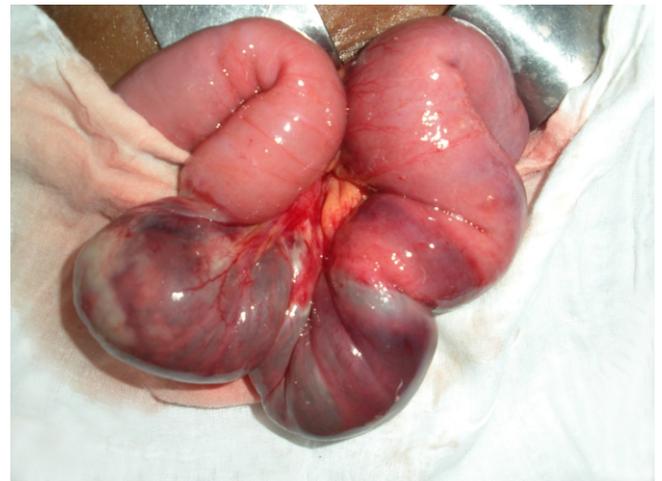


Figure 2. Gangrenous segment of small bowel after opening the hernia sac

who described the semilunar line. However, the hernia was first described by Klinkosch in 1764 [2]. A spigelian hernia is the protrusion of preperitoneal fat, peritoneal sac or abdominal viscera through the spigelian aponeurosis, which is an aponeurotic layer bounded by

the lateral edge of the rectus abdominis muscle medially and the semilunar line laterally [3]. A spigelian hernia can be congenital or acquired [2]. They present most commonly in the fifth and sixth decades of life, but can be seen at any age [4]. Ninety percent of spigelian hernias are found within “the spigelian hernia belt” of Spange which is a 6 cm transverse strip above the line joining both anterior superior iliac spines where the spigelian fascia is wider and weaker [4]. The exact cause of an spigelian hernia is unknown. Its etiology is multifactorial involving one or more factors: collagen disorders, aging, obesity, rapid weight loss, multiple pregnancies, chronic pulmonary diseases, trauma, iatrogenic, and congenital [5]. Recent reports have found that at least 50% of all patients with spigelian hernias had previous abdominal surgeries including both open and laparoscopic surgeries [5]. The differential diagnosis of spigelian hernia includes other abdominal wall hernias, rectus sheath hematoma, tumours of the abdominal wall and various intra-abdominal tumours or inflammatory disorders [3].

The clinical presentation of the patient varies from abdominal pain, lump in the anterior abdominal wall or patient may have history of incarceration with or without intestinal obstruction. The diagnosis of a

spigelian hernia is difficult [2]. The lack of specific symptomatology often results in a delay in diagnosis. Incarceration at the time of presentation is seen in 17% to 24% [4]. Ultrasonography and CT scans are useful in the diagnostic evaluation, with a reported sensitivity of 83% and 100% respectively [3]. Spigelian hernia repair can be performed via open or laparoscopic approach and involves primary fascial closure or synthetic mesh reinforcement if a large defect is identified [3, 1].

References

1. Ramones MT, Beech D. Incarcerated Spigelian hernia: a rare cause of mechanical small-bowel obstruction. *J Natl Med Assoc* 2010; 102(8):731-3.
2. Mittal T, Kumar V, Khullar R, et al . Diagnosis and management of Spigelian hernia: A review of literature and our experience. *J Minim Access Surg* 2008; 4(4): 95–98.
3. Salemis NS, Kontoravdis N, Gourgiotis S, et al. Colonic obstruction secondary to incarcerated Spigelian hernia in a severely obese patient. *Int J Surg Case Rep* 2010; 1(3): 27–29.
4. Bastidas, JG, Khan AR, LeBlanc KA. Spigelian Hernia as a Cause of Small Bowel Obstruction. *South Med J* 2010; 103(6): 567-569.
5. Baucom C, Nguyen QD, Hidalgo M, Slakey D et al. Minimally Invasive Spigelian Hernia Repair *JSLs* 2009; 13(2): 263–268.

Key Points:

- Spigelian hernia is a rare abdominal wall hernia and is a rare cause of small bowel obstruction/strangulation.
- A high index of suspicion is required for its early diagnosis and treatment.