

Case Report

BILATERAL SPIGELIAN HERNIA - A RARE ENTITY

¹Shivani Desai, ¹Nayan Gajghate, ²* A. G. Nande

¹Resident Doctor, Department of General Surgery, Bombay Hospital, New Marine Lines, Mumbai, Maharashtra, India.

²Professor and Head of Department of General Surgery, Bombay hospital Institute of Medical Sciences, Mumbai, India.

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ABSTRACT

A 68 year old male hypertensive, presented to the casualty with two episodes of vomiting and constipation and history of abdominal pain for three days. He had a recent history of cough with green expectoration and was diagnosed with pneumonia. A lump was palpable in the left iliac fossa and radiological investigations suggested a bilateral spigelian hernia for which surgery was planned.

Keywords: Subacute Intestinal Obstruction, Bilateral Spigelian Hernia, left iliac fossa lump, abdominal pain.

INTRODUCTION

Spigelian hernia is named after the Belgian anatomist Adriaan van Spieghel, who described the semilunar line or linea Spigeli, in 1645 [1]. The semilunar line represents the transition between the muscular and aponeurotic portions of the transversus abdominis muscle. Spontaneous lateral ventral hernia or the Spigelian hernia is generally an interparietal hernia, it means that the preperitoneal fat and/or the hernia sac penetrate the transversus abdominis and internal oblique muscles but remain behind the external oblique aponeurosis [2].

Although Spigelian hernias can occur at any point along the spigelian fascia, they most commonly develop at or below the arcuate line, probably because of the absence of posterior rectus sheath at that level.

Case Report

A 68 year old male hypertensive patient presented to the emergency department with complaints of pain in abdomen, colicky in nature, non radiating and was temporarily relieved with over the counter analgesic medication for 3 days. He also had 2 episodes of vomiting since the morning of presentation and constipation since 3 days.

He had a recent history of cough with green expectoration and was diagnosed as pneumonia with sputum culture positive for klebsiella pneumoniae 1 month ago and is currently on active treatment for the same. He is allergic to sulfa drugs. There is no history of fever or similar episodes in the past. There is no significant surgical history in the past. On Examination, the patient was thin build, afebrile with stable vitals. Per abdomen examination reveals a soft abdomen. A lump was palpable in the left iliac fossa around 4*4 cm, irreducible with mild tenderness over the same region. Bowel sounds were sluggish and there was no guarding or rigidity over the abdomen. Cough impulse was present over the lump; Inguinal hernial orifices were normal bilaterally. Per rectal examination revealed an empty rectum with no impacted stools.

Investigations

A ultrasonography was done which was suggestive of

- 6.1 cms defect in the anterior abdominal wall in left iliac fossa region with herniation of bowel loop and omentum
- Mild prostatomegaly with median lobe hypertrophy

Computer tomography imaging was suggestive of a bilateral spigelian hernia. A left sided spigelian hernia with a defect of 6cm in the left anterolateral abdominal wall and herniation of omental fat and few small bowel loops across it. A small 1 cms defect in the right anterolateral abdominal wall with herniation of omental fat.

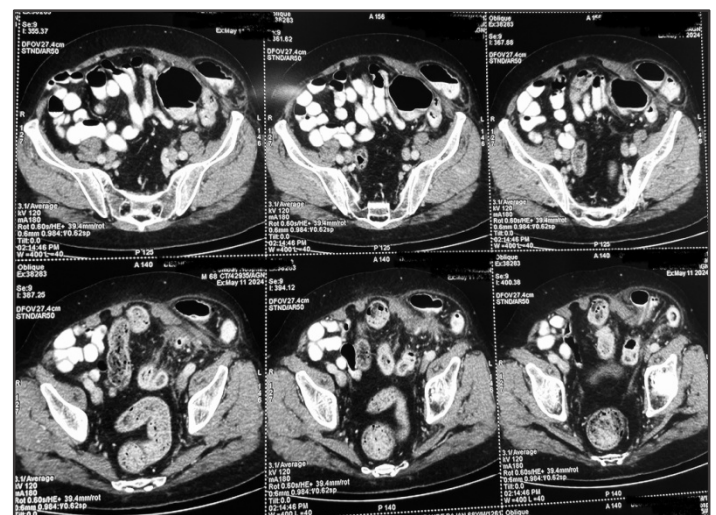


Fig 1 . Computer Tomography images of Bilateral Spigelian Hernia (Left>Right).

*Corresponding Author: A. G. Nande,

2Professor and Head of Department of General Surgery, Bombay hospital Institute of Medical Sciences, Mumbai, India.

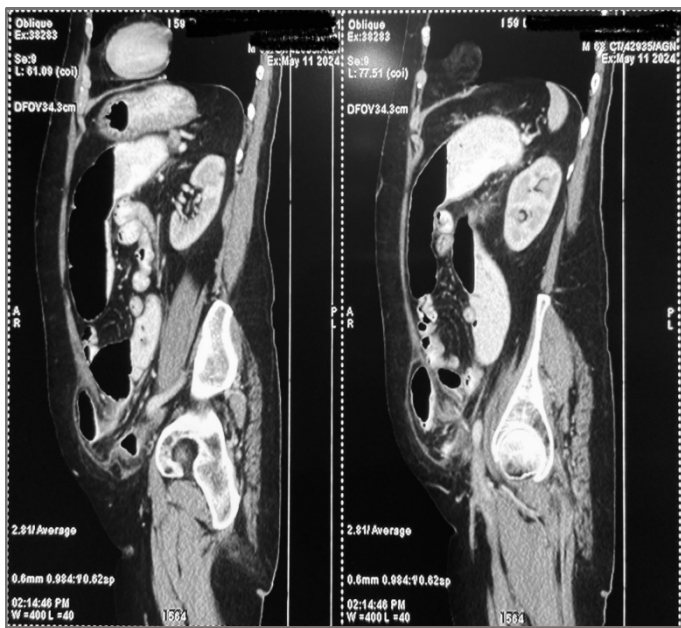


Fig 2. Sagittal reformatted images showing left sided Spigelian Hernia with 6 cms defect and herniation of omental fat with few small bowel loops across it

Surgery

An open bilateral spigelian hernia repair was planned and incision was taken over the bulge of the hernia in the left iliac region. External Oblique aponeurosis was incised in the direction of the fibres.

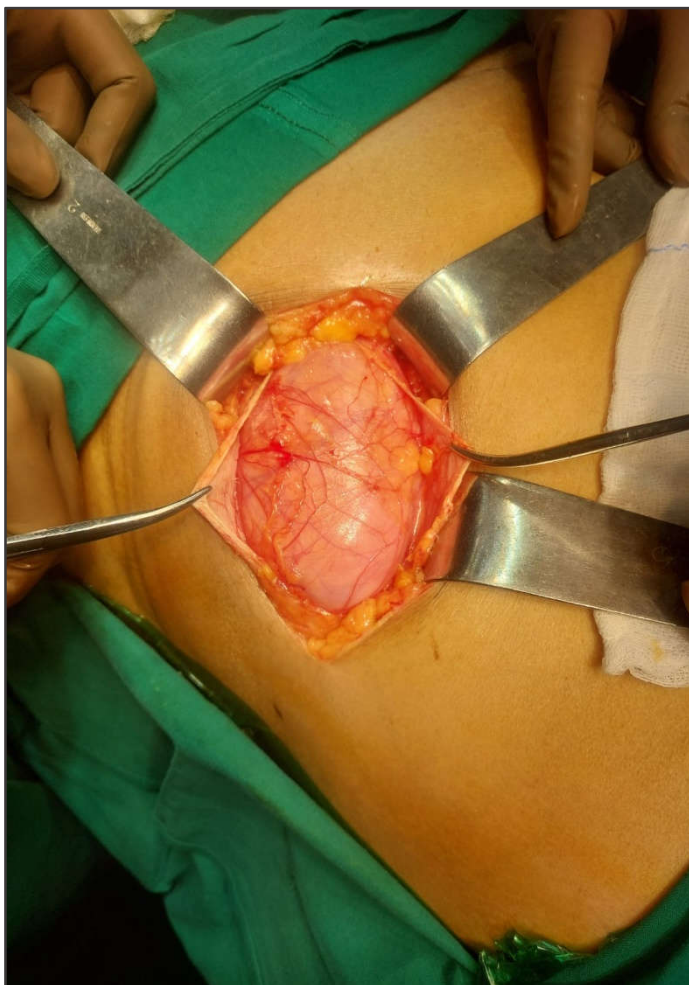


Fig 3. Left sided Spigelian Hernia

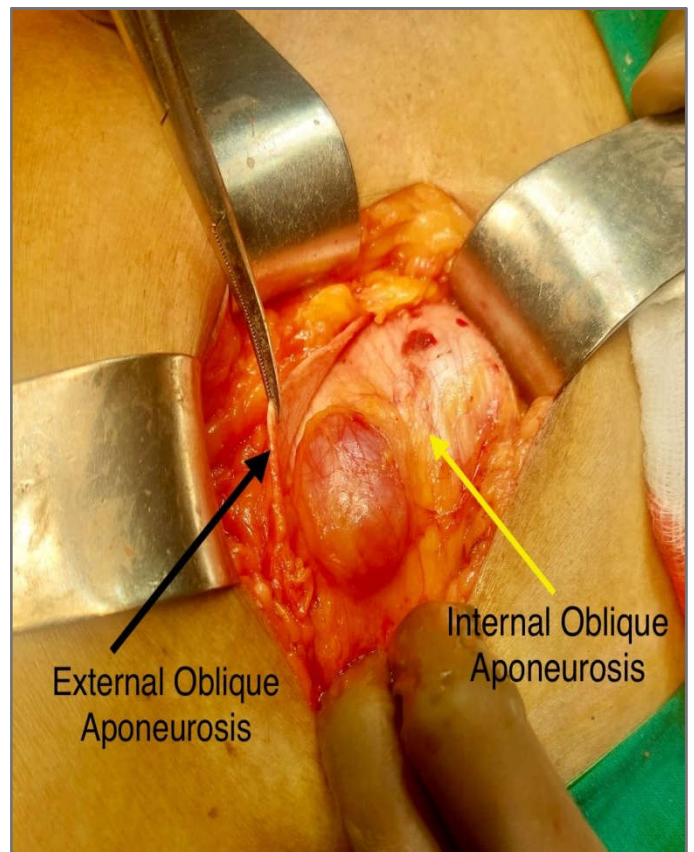


Fig 4. Right sided Spigelian Hernia

A large Spigelian hernial sac with bowel and omentum as content was noted on the left side. On the right side, small sac was noted protruding with omentum as content.

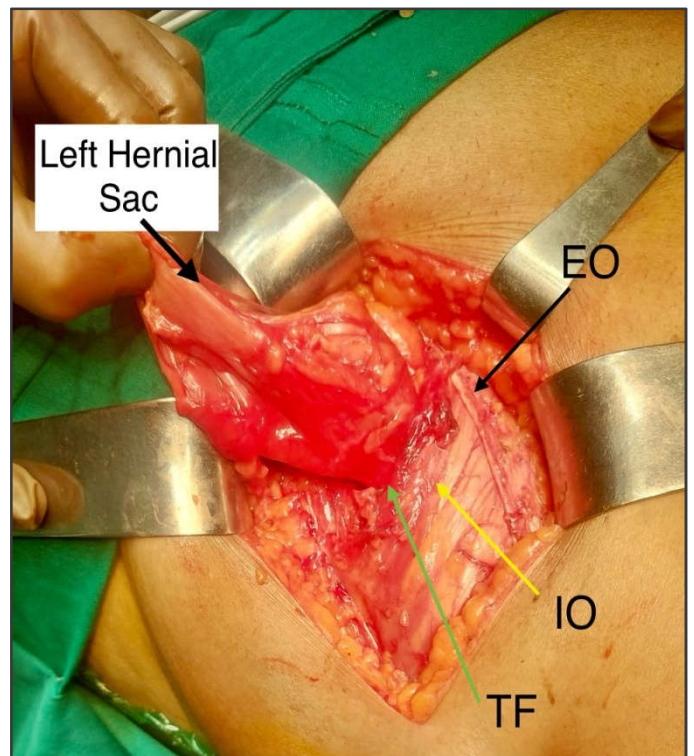


Fig 5. Left Spigelian Hernial Sac being reduced

Sac was reduced and internal oblique aponeurosis and transversus abdominis sutured to close the defect on either sides.

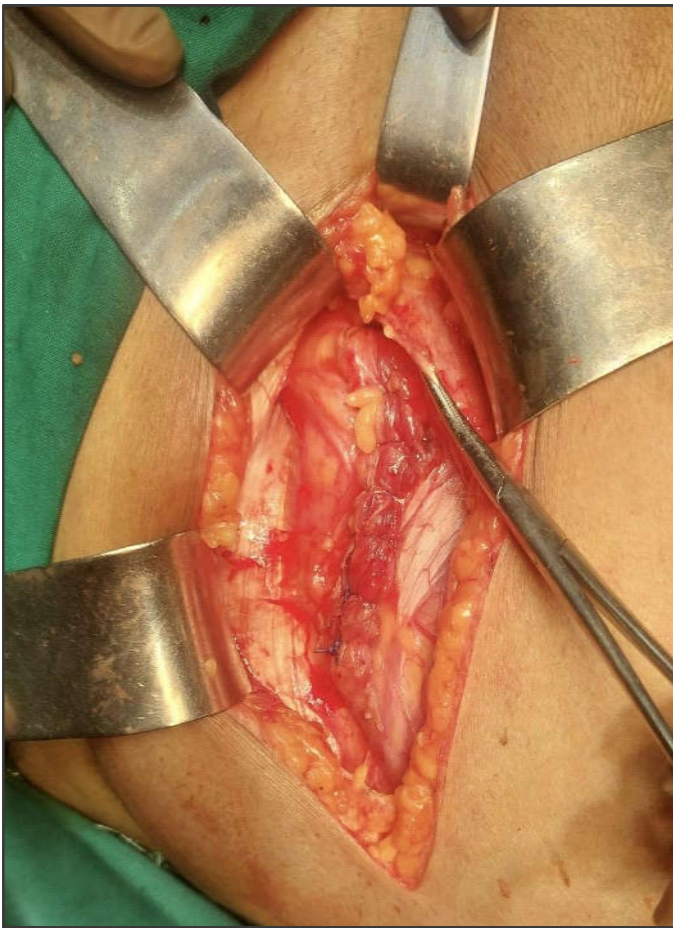


Fig 6. Defect closed on the left side

Prolene mesh was placed and fixed with prolene 2-0 sutures on either sides.

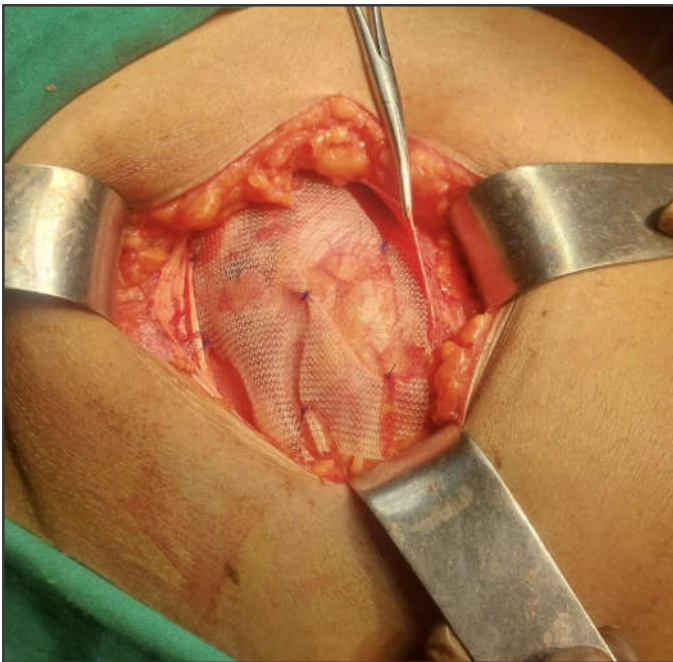


Fig 7. Left sided Prolene meshplasty

External oblique aponeurosis was sutured and skin incision was closed in layers on either side.

DISCUSSION

Spigelian hernias are very uncommon and constitute only 0.12% of all abdominal wall hernias [3]. Usually Spigelian hernia is unilateral and the case of bilateral is extremely rare [4,5,6,7,8].

It is more frequent in female, with a reported female to male ratio of 2:1 [9,10]. Previous pregnancies and higher intraabdominal pressure during delivery have been assumed as predisposing factors [11,12]. Predisposing factors include morbid obesity, multiple pregnancies, rapid weight loss, or factors causing increase in the intra abdominal pressure like coughing due to chronic obstructive pulmonary disease, chronic constipation, prostatic enlargement, ascitis, trauma, and previous surgery weakening the semilunar line. In this case chronic coughing could be one of the factors contributing to the formation of hernia. The clinical presentation is frequently ambiguous and its diagnosis remains difficult. Patients most frequently experience intermittent pain, and swelling sensation in the lower abdomen [13]. According to the experience of Larson *et al.*, [14], two-thirds of the patients describe clinical symptoms without any clinical findings.

Webber *et al.* suggested the development of Spigelian Hernia in two stages: firstly, small Spigelian Hernia without any peritoneal component, typically occurs in younger patients complaining only of intermittent pain, without palpable mass; and secondly, a larger Spigelian hernia develops with a palpable hernia sac [15].

In this case we could see both the stages as the left side was symptomatic with palpable sac and the right side was asymptomatic without any palpable sac. Low Spigelian hernia can be mistaken with inguinal hernia, and final diagnosis is only confirmed intra operatively. A digital palpation of the patient's inguinal canal with Valsalva manoeuvre in a standing position has been proposed to distinguish between low Spigelian hernia and direct inguinal hernia [16]. Co-existence of low Spigelian Hernia and direct inguinal hernia has been reported, most likely due to concomitant weakness of the Spigelian fascia around insertion of the rectus abdominis [17].

The diagnosis of a Spigelian hernia is elusive and requires a high index of suspicion, given its rarity, the vague associated abdominal complaints, and the frequent lack of consistent physical findings. Spigelian hernias possess high risk of strangulation because of sharp fascial margin around the defect. They are often diagnosed in patients presenting with another type of the ventral hernia, either current or previous [18]. Continuous ambulatory peritoneal dialysis has also been reported as a risk factor [19,20].

Conflict of interest

None

CONCLUSION

Spigelian Hernia remains a diagnostic challenge, due to the specific anatomic localisation under the external oblique aponeurosis. Moreover, they are significantly at higher risk of incarceration compared to other type of abdominal wall hernias. Consequently, even asymptomatic Spigelian Hernia should be considered for elective repair.

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