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# Rare case of spigelian hernia: A case report

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**Abstract**
Spigelian hernias are abdominal hernia that occur at the semilunar line lateral to the rectus abdominis muscle. Spigelian hernia is exceedingly rare with an incidence ranging from 0.12-0.2% of all abdominal wall hernia. It is asymptomatic in 90% of cases and generally, difficult to diagnose due to their location and vague symptoms. The most common complication is hernia strangulation. The confirmatory diagnosis has been based on the ultrasonography and Computed Tomography. Once diagnosed operative management is indicated due to risk of incarceration. We report a case of 54 years old female patient who presented with swelling in the right iliac fossa associated with intermittent pain. A diagnosis of Spigelian hernia was made. The patient underwent open hernial repair with prosthetic polypropylene mesh implantation. Her recovery was uneventful.

**Keywords:** Spigelian hernia, Interparietal hernias, klinklosch, semilunar line

## Introduction
The Spigelian hernia is an interparietal hernia which occurs through the Spigelian fascia composed of aponeurotic layer between the rectus muscle medially and semilunar line laterally [1]. The most frequent location of these rare hernias is at or slightly above the level of arcuate line [2]. Spigelian type of hernia is exceedingly rare with an incidence ranging from 0.12-0.2% of all abdominal wall hernia. Most Spigelian hernia are small about 1-2cm in diameter and developed during fourth to seventh decades of life [3]. Diagnosis of Spigelian hernia requires high degree of suspicion, with the most common findings on clinical examination presenting a lump at semilunar line. Ultrasonography and computed tomography of abdomen are useful in confirming the diagnosis. Once diagnosed it requires operative repair. We present a case of Spigelian hernia in a female patient who was admitted in the department of surgery in Smt. SMS Multispeciality Hospital, Ahmedabad.

## Case Report
A 54-year-old female patient presented at OPD of Smt. SMS Multispeciality Hospital with the complaint of swelling in the right iliac fossa with mild intermittent pain from last 3 years. Patient had no any past operative history. Patient was a known case of hypothyroidism and hypertension and on regular oral medication from last 20 years.

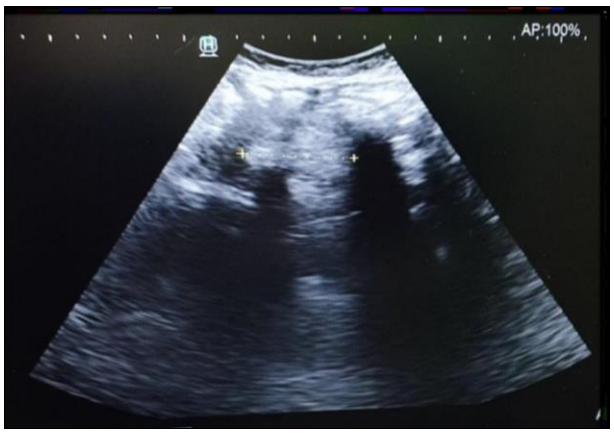


**Fig 1:** USG film showing defect of Spigelian hernia of about 2.7 cm, contact bowel and ometum

On examination patients Basal metabolic index was 27.14. Her vitals were stable, bilateral chest was clear with normal vesicular breathing sound, S1 & S2 were audible with no murmur, per abdomen soft and bulky, umbilicus centrally placed inverted. Physical Examination revealed a firm lump of about 4 × 3 cm found on right lower abdomen in right iliac region at the right linea semilunaris on coughing. The lump was roughly oval shaped with smooth surface, indistinct margins, doughy consistency and mild tenderness present over the lump. The lump increased on coughing and decreased on lying down position.

**Fig 2:** Showing hernia content throught the defect

After adequate preparation she was planned for open hernial repair with mesh implantation. Oblique incision of approximately 4 inch was given in right lumbar region, after dissecting in layers, intraoperatively right sided Spigelian hernia was found. After dissection of adhesions with the help of electrocautery, hernial content was reduced and defect was closed with continuous suture. After closing the defect, the prosthetic composite mesh (15*15 cm) was introduced and fixed with the help of prolene 2-0 suture to cover the defect. Postoperative recovery was uneventful and patient was discharged on 4$^{th}$ post-operative day.

**Investigation**

Investigation revealed hemogram, liver function tests, blood urea, serum electrolytes and serum creatinine were normal. Patient was non-reactive for HIV, HBsAg and HCV. Confirmatory diagnosis based on USG of whole abdomen and pelvis showed grade I fatty liver and right side Spigelian hernia of defect measuring 2.7 cm with herniation of bowel and omentum.

**Discussion**

Interparietal hernias are rare and occur when the hernia sac lies between layers of abdominal wall. Spigelian hernia is almost always interparietal. In 1764 klinklosch, was the first to describe Spigelian hernia, but in 1976 only Spangen became first to described detail aspect of the Spigelian hernia [4]. Spigelian hernia arises through the congenital or acquired defect in the Spigelian fascia. The Spigelian fascia lies between semilunar line and the lateral border of the rectus sheath. The semilunar line, that is also known as Spigelian line marks the transition from muscle to aponeurosis of the transverse abdominis muscle. A defect in this fascia result in Spigelian hernia.

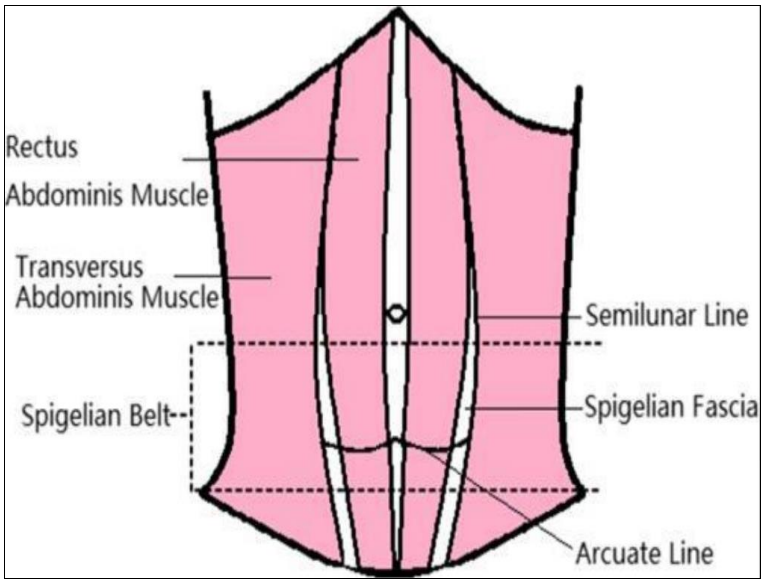


**Fig 3:** Location of spigelian fascia

These hernias are uncommon and probably underdiagnosed. They affect men and women equally and can occur at any age, but are most common in elderly people. The Spigelian fascia extends between the transversus muscle and the lateral border of the rectus sheath from the costal margin to the groin, where it blends into the conjoint tendon. Most Spigelian hernias appear below the level of the umbilicus near the edge of the rectus sheath, but they can be found anywhere along the Spigelian line [5]. As many as 90% are located 0 to 6 cm cranial to the interspinal plane (the horizontal plane through both anterior superior iliac spine). The defects originate through the transverse abdominis muscle and may or may not involve the more superficial layers, hernia sac and contents often lie in an intramural location between abdominal wall layers and may or may not be palpable. Patients usually present with intermittent pain with or without lump.

The diagnosis is usually suspected because of the location of the symptoms and is confirmed by Computerised tomography or Ultrasonography. After confirmation of diagnosis surgery is recommended. Surgery can be open or Laparoscopic. A Spigelian hernia is repaired because of the

risk for incarceration associated with its relatively narrow neck [6].

## Conclusion

Spigelian hernia are very rare, often diagnosed at strangulation stage. With the advancement of medical imaging, diagnosis can be made timely. Once diagnose it requires surgical intervention. Choice of surgery is depending on surgeon's preference either open or laparoscopic with mesh implantation.

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## Author's Contribution

Not available.

## Conflict of Interest

Not available.

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