



**SPIGELIAN HERNIA – RAREST OF THE RARE CASES. A CASE REPORT OF LEFT SIDED SPIGELIAN HERNIA.**

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**ABSTRACT**

A spigelian hernia is considered as a diagnostic challenge . Although abdominal imaging may be helpful, the findings of unusual abdominal complaints in the proper anatomic location should alert one to the possibility of a spigelian hernia. Incidence of spigelian hernia ranges from about 0.1% to 2% of all abdominal wall hernias. As spigelian hernias are clinically elusive , we report this rare encounter of a left sided spigelian hernia in a 50 years old female patient and its management.

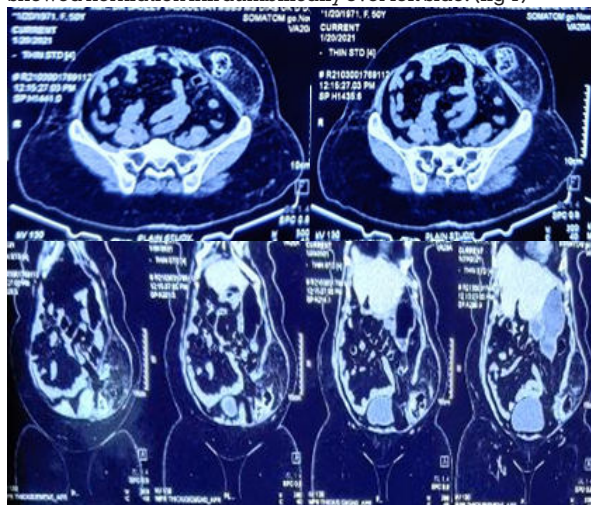
**KEYWORDS :** Spigelian line , ultrasonography , computed tomography

**INTRODUCTION:**

Spigelian hernia is a type of lateral abdominal wall hernia, wherein the sac is surrounded by extraperitoneal fat, is often interparietal passing through the transversus abdominis and the internal oblique aponeuroses and then spreading out beneath the intact aponeurosis of the external oblique, or lying in the rectus sheath alongside the rectus muscle. Most of them occur below the arcuate line, where the posterior sheath is deficient. It is also known as "spontaneous lateral ventral hernia" or "hernia of semilunar line".

**CASE REPORT:**

A 50 years old lady presented with sudden onset left sided lower abdominal swelling and pain of 5 days duration, following lifting of a filled water can. She gave no history of altered bowel habits. She had no known comorbidities and had not undergone any abdominal surgeries in the past. Physical examination revealed a swelling below and to the left of the umbilicus. She was advised admission. Ultrasonography (USG) showed 3cm defect in left part of hypogastrium with herniation of viable bowel & omentum. Her abdominal X ray was normal with no air fluid levels. Other routine lab values were normal. Computed tomography (CT) showed herniation infraumbilically over left side. (fig 1)



**Figure 1. CT Of The Patient Showing Left Sided Spigelian Hernia**

Patient was operated electively. Intraoperatively, spigelian hernia with omentum and bowel as content was noted.

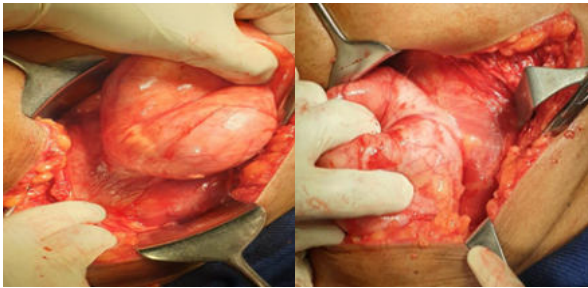
Anatomical closure of the defect of size about 4cm was done using 1-0 prolene followed by mesh repair. Figures 3-8 show the intra operative findings .



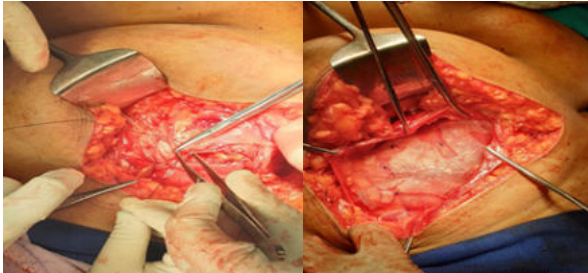
**Figure 2 . Pre Op Picture Of The Patient**



**Figure 3. Intact External Oblique Aponeurosis Covering The Spigelian Herniation Beneath.**

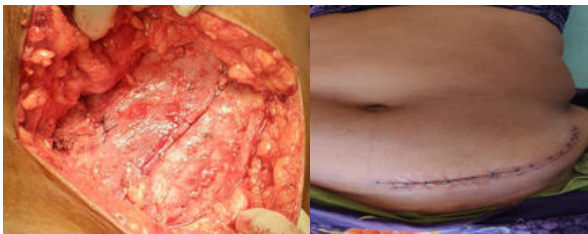


**Figures 4 & 5.** Spigelian hernia seen in the spigelian belt, below arcuate line.



**Figure 6.** Closure of the defect

**Figure 7.** Mesh repair



**Figure 8.** Closure of external oblique aponeurosis

**Figure 9.** Post op wound

Post operative period was uneventful and patient was discharged on POD 3. Patient is on regular follow up.

#### DISCUSSION:

Adriaan van der Spiegel, a Belgian anatomist, first described the semilunar line as a concave region at the lateral border of the rectus muscle formed by the inferior oblique aponeurosis. More than 100 years later, in 1764, Klinkosch identified the "hernia of the spigelian line" as a distinct entity. Usually occurs around 4th to 7th decades with male to female ratio of 1:1.18<sup>5</sup>. Spigelian line is a lateral convex line between the costal arch and the pubic tubercle. The part of the aponeurosis that lies between the semilunar line and lateral border of the rectus muscle is called the Spigelian fascia / Spigelian belt. Anteriorly throughout its length, the semilunar line is reinforced by the aponeurosis of the external oblique. Posteriorly in the cephalad two thirds, it is reinforced by the transversus abdominis muscle which is muscular almost to the midline in the upper abdomen. This support will prevent herniation and therefore its incidence above the umbilicus is negligible. Herniation usually occurs in that area of the Spigelian fascia, which is weakened by perforating vessels. 85-90% of the hernias occur within this "Spigelian hernia" belt. Diagnosing spigelian hernia is a challenge since it has no characteristic symptoms, and may be interparietal with no obvious mass on inspection or palpation. Less than 50% of cases are diagnosed preoperatively<sup>5</sup>. 20% to 30% require emergency intervention due to narrow neck of these hernias<sup>7,9</sup>. Surgical management includes transverse incision and primary repair. Primary repairs have been associated with a low, but real recurrence rate of about 4%<sup>8</sup>. As expected, mesh repairs have been successfully applied to treat spigelian hernias. Few or no recurrences at long-term follow-up have been reported by investigators<sup>8</sup>. Carter and Mizes performed

first intra-abdominal laparoscopic repair of Spigelian hernia in 1992<sup>1</sup> suture closing the defect. Spigelian hernias are ideally suited to preperitoneal laparoscopic repair because the defect in the Spigelian aponeurosis is more clearly identified in the preperitoneal plane. The best results are offered by the extra peritoneal laparoscopic approach<sup>6</sup>. Since Spigelian hernias are elusive clinically and chances of strangulation are high, surgical management should be advised at the earliest.

#### REFERENCES:

1. Carter JE, Mizes C. Laparoscopic diagnosis and repair of Spigelian hernia: report of case and technique. *Am J Obstet Gynecol.* 1992;167:77-8.
2. Klinkosch JT. Programma quo divisionem herniarum. In: Klinkosch JT, eds. *Novumque Herniae Ventralis Specium Proponit.* Rotterdam: Benam; 1764.
3. Howlihan TJ. A review of Spigelian hernia. *Am J Surg.* 1976;131:734-5.
4. Spagen L. Spigelian hernia. *World J Surg.* 1989;13:573-80.
5. Rogers FB, Camp PC. A strangulated Spigelian hernia mimicking diverticulitis. *Hernia.* 2001;5:51-2.
6. Moreno-Egea, Flores B, Girela E, Martin JG, Aguayo JL, Canteras M. Spigelian hernia: bibliographical study and presentation of a series of 28 patients. *Hernia.* 2002;6:167-70.
7. Montes IS, Deysine M. Spigelian and other uncommon hernia repairs. *Surg Clin North Am.* 2003;83:1235-1253.
8. Larson DW, Farley DR. Spigelian hernias: repair and outcome for 81 patients. *World J Surg.* 2002;26:1277-1281.
9. Patle NM, Tantia O, Sasmal PK, Khanna S, Sen B. Laparoscopic repair of spigelian hernia: our experience. *J Laparoendosc Adv SurgTech A.* 2010;20:129-133.
10. Lin PH, Kofforon AJ, Heilizer TJ, Lujan HJ. Right lower quadrant abdominal pain due to appendicitis and an incarcerated Spigelian hernia. *Am Surg.* 2000;66:725-7.
11. Slakey DR, Teplitsky S, Cheng SS. Incarcerated Spigelian hernia following laparoscopic living-donor nephrectomy. *J Soc Laparoendosc Surg.* 2002;6:217-9.
12. Kasiranjan K, Lopez J, Lopez R. Laparoscopic technique in the management of Spigelian hernia. *J Laparosc Adv Surg Tech.* 1997;7:385.