

## Case Report: Laparoscopic Repair of an Incarcerated Spigelian Hernia with Mesh in a 70-Year-Old Male

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### Introduction

Spigelian hernia is a rare type of ventral hernia, accounting for approximately 1–2% of all abdominal wall hernias. It occurs through a defect located between the semilunar line and the lateral edge of the rectus abdominis muscle. Due to its anatomical location, Spigelian hernias are often difficult to diagnose preoperatively and are frequently associated with high rates of incarceration and strangulation.

### Case Presentation

A 70-year-old male with a history of BPH (benign prostatic hyperplasia) and CAD (coronary artery disease) presented to the emergency department with acute onset of left lower abdominal pain. Physical

examination revealed a tender, partially reducible mass in the left lower quadrant. Contrast-enhanced abdominal CT scan confirmed the diagnosis of an incarcerated Spigelian hernia containing a portion of ascending colon (Figure 1). Given the patient's age and the nature of the hernia, a laparoscopic approach was planned.



Figure 1 – Spigelian hernia containing a portion of ascending colon

### Surgical Intervention

The patient underwent laparoscopic repair under general anesthesia. Three ports were placed: one for the camera and two for the laparoscopic instruments. Upon exploration, a 4 cm defect in the Spigelian fascia was identified, through which a portion of ascending colon was incarcerated. The hernia sac was carefully reduced (Fig.2), and the incarcerated bowel was inspected for viability. No signs of ischemia were noted. The defect (Fig.3) was repaired using an intraperitoneal onlay mesh (IPOM plus) technique, with a continuous laparoscopic self-locking suture and composite mesh placed over the defect, secured with absorbable tacks.

The procedure lasted 80 minutes, and the patient tolerated it well. Postoperative recovery was uneventful, and the patient was discharged on POD#2 (postoperative day 2).

### Discussion

Spigelian hernias are challenging to diagnose due to their location and the nonspecific nature of symptoms. Imaging studies, particularly contrast-enhanced CT scans, play a crucial role in diagnosis. Incarceration rates are high, and timely surgical intervention is essential to prevent

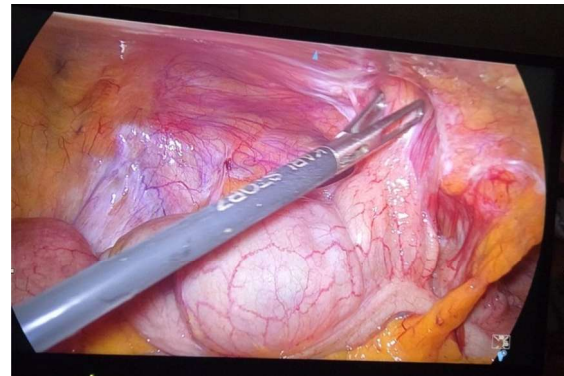


Figure 2 – The hernia sac was carefully reduced



Figure 3 – The defect was repaired using an intraperitoneal onlay mesh (IPOM plus).

complications such as bowel strangulation. Laparoscopic repair offers several advantages over open surgery, including smaller incisions, reduced postoperative pain, shorter hospital stays, and quicker recovery times. The use of mesh in hernia repair has been shown to reduce recurrence rates. In this case, the IPOM plus technique was chosen due to its effectiveness in reinforcing the abdominal

wall and its suitability for emergency settings.

### Conclusion

Laparoscopic repair with mesh is a safe and effective treatment for incarcerated Spigelian hernias, even in elderly patients. Early diagnosis and timely surgical intervention are critical to prevent complications. The laparoscopic approach provides excellent visualization, minimal invasiveness, and favorable outcomes.

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