

A Case Report of Spigelian Hernia with Obstruction

Badkur Mayank¹, Jain Ajay Kumar¹, Singh Yogendra¹

¹(Department Of Surgery, People's College Of Medical Sciences And Research Centre, Bhopal, Madhya Pradesh, India)

ABSTRACT:

Introduction: Obstructed spigelian hernia is a rare cause of acute abdomen. The clinical diagnosis of obstructed spigelian hernia can be a challenge in the absence of definite signs. Preoperative diagnosis need high index of suspicion.

Case Presentation: A 56 year male farmer of heavy built and protuberant abdomen, presented with sub acute intestinal obstruction. Abdominal examination revealed generalized distention, tense abdomen, no guarding and rigidity. Bowel sounds were hyperdynamic. X-ray abdomen suggestive of intestinal obstruction. Abdominal ultrasonography was suggestive of intestinal obstruction. In preoperative period diagnosis of Sub Acute Intestinal Obstruction was made

Management and Outcome: patient was kept on conservative treatment for two days. Patient did not respond and was taken up for exploration laparotomy, diagnosis of spigelian hernia was made per operatively.

Discussion: Spigelian hernias are clinically elusive often until strangulation occurs. If diagnosed, operation should always be advised.

Patient consent is obtained.

KEYWORDS: Spigelian hernia; Acute Abdomen; intestinal obstruction

I. INTRODUCTION:

The Spigelian hernia (SH) is an uncommon ventral hernia characterized by a defect in the linea semilunaris and known as “hernias through the conjoint tendon”. [1] It is also called “spontaneous lateral ventral hernia” or “hernia of semilunar line”. [4] Spigelian hernias are rare accounting for 1-2% of all hernias, they are the most common type of spontaneous lateral ventral hernias. They frequently present between 50–60 years of age, with a male to female ratio of 1: 1.18 and occur twice as often on the right side compared to the left [6]. The predisposing factors resulting in increased intra abdominal pressure and factors that attenuate the tone of the oblique muscles and connective tissue integrity are the same as for other types of hernias. The diagnosis is not always straightforward, especially when a mass is not palpable. The most important factor in the diagnosis of this condition is a high index of suspicion. [2] It has been suggested that the diagnosis of Spigelian hernia may be difficult to make because the symptoms are often deceptive. We report a rare presentation of spigelian hernia with features of intestinal obstruction.

II. CASE HISTORY:

A 56 year male farmer of heavy built and protuberant abdomen, presented with the complain of generalized dull pain in abdomen since 10 days, distention of abdomen, not passing motion, flatus and vomiting since 4 days. Patient also had similar episode of vague abdominal pain, with constipation two times in past 1 year. Symptoms relieved after conservative medical treatment. He had no history of cough, fever, loss of weight.

On general physical examination, no abnormality was detected and the abdominal examination revealed generalized distention, tense abdomen, no guarding and rigidity. Bowel sounds were hyper dynamic. There was no hepatosplenomegaly or any lump felt per abdomen. His Digital Rectal examination was within normal limits. His past medical and family history was non-contributory.

His routine hematological investigations and urine analysis were within normal limits. ESR was raised. Chest X-ray was normal.

X-ray abdomen showed multiple air fluid levels with dilated bowel loops suggestive of intestinal obstruction.

Abdominal ultrasonography revealed dilated bowel in upper abdomen with no peristalsis, and mild peritoneal collection with no internal echoes. In preoperative period diagnosis of Sub Acute Intestinal Obstruction was made and patient was kept on conservative treatment for two days. Patient did not respond and was taken up for exploration laparotomy.

III. MANAGEMENT AND OUTCOME:

Exploratory laparotomy done with midline incision. Mild serous peritoneal collection was drained; an ilial loop was herniated in a defect of 3*3 cm on left side of mid line in spigelian belt region. Hernia ring incised and ilial loop was reduced, the loop was dusky in color which turned pink after warming. Hernia defect was repaired.

IV. DISCUSSION:

Spigelian hernia is named after Adriaan van Spieghel. However, it was first described by Klinkosch in 1764. [4]

The exact **etiology** of Spigelian hernia is uncertain.[6] Spigelian hernia can be congenital or acquired.[4] Any factor which can produce a defect in parital peritoneum, and that defect can predispose herniation of ilial loop into the parital abdominal muscles, and lead to strangulation.

“spigelian hernia belt” is the region of anterior abdominal wall between level of umbilicus to line passing through anterior superior iliac spine. The hernial ring is a well-defined defect in the aponeurosis. The hernial sac, surrounded by extra peritoneal fat, is often interparietal passing through the transversus 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.

The accurate diagnosis of spigelian hernia is often difficult and can be attributed to its rarity and the absence of classical **symptoms** coupled with a lack of personal clinical familiarity. It can simulate a variety of other commoner lower-quadrant abdominal diseases. Only about 50% of cases are diagnosed preoperatively [6]. Mostly spigelian hernia is diagnosed only when it produces pain, otherwise vague bowel irregularity should raise the suspicion of spigelian hernia. The commonest presentation is that of a painful lump lateral to the rectus muscle, below the level of the umbilicus. It is very difficult to determine its presence. In uncomplicated cases, the symptoms may be intermittent, making diagnosis more often than not very ambiguous. As with all hernias, there is a risk of strangulation, and it is a rare cause of the acute abdomen [8].

The **differential diagnosis** includes appendicitis and appendiceal abscess, a tumor of the abdominal wall or a spontaneous hematoma of the rectus sheath or even acute diverticulitis. The list of possibilities in the differential diagnosis of superficial lesions in the abdomen is sizeable and growing steadily.

Radiological investigations, such as ultrasonography and Computed Tomography (CT) scans may help diagnose Spigelian hernias. Papierniak et al. have demonstrated the usefulness of computerized tomography in diagnosing Spigelian hernias [9]. Yet in uncomplicated cases, a clear radiologic diagnosis of a Spigelian hernia prior to surgery is often infrequent. Ultrasound is recommended as first line imaging investigation. CT scanning with close thin sections is considered the most reliable technique to make the diagnosis in doubtful cases. [14] The use of oral contrast medium during the examination is recommended so that any bowel content can be identified. The increasing availability of the magnetic resonance imaging (MRI) may be of benefit in the preoperative evaluation of these difficult cases. Non-invasive real-time imaging like ultrasonography remains the first line of investigation for detecting occult hernias.

Spigelian hernias are treacherous and have a real risk of strangulation. The risk of strangulation is higher because of sharp fascial margin around the defect. For this reason, surgery should be advised in all patients. Surgery can be performed either by open technique or by laparoscopically. In the prospective randomized controlled trial comparing conventional versus laparoscopic management of spigelian hernia (11 conventional and 11 laparoscopically) there was significant advantage in terms of morbidity and hospital stay in laparoscopy group. [16]



Fig:1, ilial loop herniating into the defect in spigelian belt.

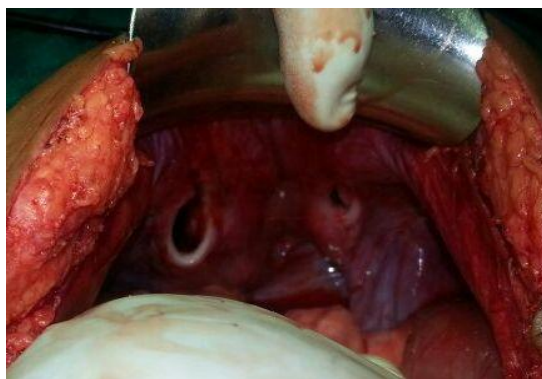


Fig: 2, showing hernia defect, ilial loop was reduced,



Fig: 3, showing discolored ilial loop

V. CONCLUSION:

Spigelian hernias are clinically elusive often until strangulation occurs. If diagnosed, operation should always be advised. This rare type of hernia is usually small and doesn't show any outward signs, so it's very difficult to determine its presence. Ultrasonic scanning can be recommended for verification of the diagnosis in both palpable and nonpalpable spigelian hernia. The hernia orifice and sac can also be demonstrated by computed tomography, which gives more detailed information on the contents of the sac than does ultrasonic scanning. Surgery is treatment of choice. As stated by Osler, "A physician cannot make a diagnosis, unless he first thinks of the disease." Let us hope that this hernia will be discovered on more occasions than is presently reported. [9]

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