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A Rare Case Of Incarcerated Spigelian Hernia

Medical Science

KEYWORDS :

DR.SAJAG KUMAR GUPTA — RESIDENT GENERAL SURGERY, Surat Municipal Institute of Medical Education & Research Surat,Gujarat,India

DR.ANUP PATKI — ASSISTANT PROFFESOR GENERAL SURGERY , Surat Municipal Institute of Medical Education & Research, Surat,Gujarat,India

ABSTRACT

Introduction: Spigelian hernia is a rare variety of ventral abdominal hernia accounting for less than 2% of all abdominal hernias. Preoperative diagnosis is usually difficult and patients may present with intestinal obstruction. Treatment involves patient optimization and repair of the hernia. The latter is achieved either by open or laparoscopic technique with or without mesh. Outcome is usually excellent.

Case Report: We report an unusually large spigelian hernia (10x10 cm) with an obvious ventral swelling in a 35-year old female. There was associated abdominal pain since 1 day. At operation, contents of the sac included viable small bowel, omentum, and reduced. She was stabilized, had an open repair without mesh and was followed up for eight months without signs of recurrence or other complications.

Conclusion: Spigelian hernia is rare and preoperative diagnosis difficult in the majority of cases. Occasionally, like in this case, an obvious ventral swelling was present. making diagnosis easier. Repair of the hernia was done by open technique without use of mesh due to the narrow defect on the abdominal wall.

Spigelian hernias are rare abdominal wall defects that occur at the semilunar line lateral to the rectus abdominis muscle. The majority of patients present with symptomatic incarceration of preperitoneal fat or intra-abdominal viscera.

Radiographic studies are beneficial in confirming the diagnosis. The high rate of incarceration with or without strangulation mandates operative repair once the diagnosis is confirmed. This manuscript outlines the clinical presentation and management of a patient with an incarcerated Spigelian hernia.

INTRODUCTION

Spigelian hernias are partial abdominal wall defects named after Adriaen Van den Spigehel, an anatomist from Belgium who described the fascial defects associated with this rare hernia. (1) Spigelian hernias are also referred to as *spontaneous lateral ventral hernias*, *hernia of the semilunar line*, or *hernias through the conjoint tendon*. Earlier delineation of lateral ventral hernias (Spigelian hernias) from other ventral hernias was noted in 1748 by Chause.(2) However, it was not until 1764 that Klinklosh recognized that Spigelian hernias were not secondary to trauma but can occur spontaneously.(3)Spigelian hernias represent approximately 2% of abdominal wall hernias. The etiology of Spigelian hernias is thought to be the result of fascial weakness associated

with perforating vessels. Others suggest that previous abdominal operations produce weakening of the semilunar line, thus predisposing patients to the development of Spigelian hernias. Processes that cause increased tension on the abdominal wall aponeurosis, such as straining due to prostate enlargement, chronic cough, multiple pregnancies or obesity, are thought to predispose patients to the development of Spigelian hernia. Of all abdominal wall hernias, Spigelian hernias remain evasive.(4) Diagnosis of Spigelian hernias requires a high idea of suspicion, with the most common finding on physical exams being a painful mass at the semilunar line. A computerized tomography (CT) scan of the abdomen is useful in confirming the diagnosis. Once diagnosed,

Spigelian hernias require operative repair.

Case report : A Thirty five year year old female presented with the complain of abdominal lump since 10 years and abdominal pain since 1days . The pain was described to be generalized, dull, and constant, with no radiation to the chest or back. She denied blood or mucous in her bowel movements, nausea, vomiting, and any association of her pain with eating or changes in position.

Physical examination revealed a well-developed, well-nourished woman in mild distress secondary to the abdominal pain. Her blood pressure was 136/90 mm Hg, and her other vital signs were within normal limits. Her abdominal examination shows lump in 10*10 cms tender mass in left lower quadrant, no cough impulsive, non-reducible, no redness with hypoactive bowel sounds, Xray abdomen shows air fluid suggestive of intestinal obstruction. USG abdomen suggestive of large defect in anterior abdominal wall though which herniation of omentum and bowel wall noted herniated bowel loop are dilated and sluggish peristaltic activity possibility of obstruction region on .blood investigation shows leucocytosis and neutrophilia. patient was taken for emergency surgical repair by mean of local incision .). Operative findings confirmed the preoperative diagnosis of a Spigelian hernia with incarcerated small bowel. Release and reduction of incarcerated content were performed, followed by inspection of the area. The incarcerated segment of small bowel was viable with no evidence of vascular compromise or necrosis; resection of the segment was deemed to be unnecessary and hernia is reduced the large defect in the abdominal wall was closed up by succesive anatomical layers,drain placed in situ.In post-operative period was uneventfull and patient was discharged on seventh day.

Discussion

Spigelian hernias are rare abdominal wall hernias occurring in approximately 0.2% of patients.(5) Typically, patients present in the fifth to sixth decade of life. Spigelian hernias occur

equally in males and females and have a high incidence of having associated viscera.(6) Typical clinical presentation is that of a painful bulge appreciated lateral to the rectus muscle slightly below the umbilicus. This is the location of the Spigelian line. Spigelian hernias occur near the lateral border at the rectus at the semilunar or Spigelian line. This is located near the lateral border of the rectus and is a musculoaponeurotic structure extending from the ninth costal cartilage to the public tubercle.(7) This aponeurotic band is comprised of the fusion of the transversus aponeurosis and the posterior leaf of the internal oblique aponeurosa. Defects may occur with this aponeurotic band, predisposing patients to developing a hernia at this site.

Spigelian hernias occur twice as often on the right abdominal wall compared to the left. It is highly unusual for these hernias to present with bilateral disease.6

Clinicians often times overlook the possibility of a Spigelian hernia when evaluating patients for clinical evidence of a abdominal mass or bulge with or without an associated mechanical small-bowel obstruction. Abdominal wall obesity and large truncal soft-tissue prominence can mask the presence of an incarcerated Spigelian hernia. The most common presenting symptom is focal abdominal pain at the Spigelian and semicircular line junction.(7) Presentation of the abdominal wall pain can be associated with an abdominal mass. Taken together, these 2 clinical findings strongly suggest the presence of a Spigelian hernia. These rare abdominal wall hernias frequently elude clinical diagnosis due to their rare occurrence and the often-vague symptomatology. Radiographicstudies, such as ultrasonography or CT scans, are highly useful in confirming the diagnosis of an abdominal wall hernia, particularly if there is associated incarceration.(8) Operative management is required for Spigelian hernias, particularly those with associated incarceration. An anterior approach is preferred with high ligation of the hernia sac and a tension-free repair. Spigelian hernias are often repaired using direct suture technique utilizing nonabsorbable interrupted sutures. Imbrication of the external oblique aponeurosis is commonly used to reinforce the repair. Large defects may require the use of a mesh repair. Minimally invasive approaches (laparoscopic approaches) can occasionally facilitate confirming the diagnosis of a Spigelian hernia as well as a posterior repair. Laparoscopic hernia repair often is not feasible in the face of a mechanical small-bowel obstruction. However, elective repair for asymptomatic Spigelian hernia repair using minimally invasive laparoscopic

approaches may be of benefit. Spigelian hernias are rare abdominal wall hernias that often present with visceral organ incarceration. A high index of suspicion is required for accurate diagnosis. Radiographic studies may facilitate the diagnosis of Spigelian hernias, which ultimately require operative repair. An anterior or posterior approach can be taken for Spigelian hernia repair with increasing use of laparoscopic repairs in uncomplicated cases.

Conclusion

Spigelian herniae are uncommon, but may still represent more than 2% of abdominal wall herniae requiring emergency surgery. The diagnosis is not always straightforward, and may be assisted by abdominal ultrasound or computerized tomography.

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