Incidental spigelian hernia

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ABSTRACT

Spigelian hernia constitute about 0.12 to 0.2% of all abdominal hernias usually found between 50-60 yrs, affecting both sides and both sexes equally. The absence of typical hernia-type symptoms and the lack of physician experience with such hernias, makes early recognition difficult. The elective treatment of spigelian hernias is by open surgery, or by laparoscopy. The use of laparoscope has simplified its diagnosis, clarified its localization and facilitated the subsequent repair. Laparoscopic repair offers advantage over open mesh repair, including reduced morbidity, shorter hospital stay, cosmetic and perhaps the lower recurrence rate. We report two cases of uncomplicated spigelian hernia which we encountered while performing laparoscopic cholecystectomy for symptomatic cholelithiasis.

Key words: Spigelian hernia, uncommon hernia, incidental hernia.

How to cite this article:

Spigelian hernia (SH) is a rare defect of the abdominal wall located on the outer edge of the crescent line, in the area that joins the fascia of rectus muscle to sheath of wide muscles of abdomen.[1] The absence of typical hernia-type symptoms and the lack of physician experience with such hernias, makes early recognition difficult. Elective treatment can be administered by open or laparoscopic surgery. There is little evidence in the literature that can direct favorably towards one technique, as there is lack of experience due to rarity of such hernias.

We are reporting two cases of incidental spigelian hernia, which we encountered in patients undergoing laparoscopic cholecystectomy.

CASE REPORTS

Case 1
A 68 yr female presented with history of intermittent right upper quadrant pain for 1 year. Thorough history, clinical examination, routine blood test, liver function test, renal function test and abdominal sonography were done. All the reports were fairly normal and sonography showed multiple gallstones. Laparoscopic cholecystectomy was planned. On laparoscopy, left sided SH was detected. Laparoscopic cholecystectomy was done and the hernia was managed laparoscopically. Omentum adherent to the defect was reduced. The defect was seen as a large opening in the peritoneum, along the lateral margin of rectus abdomens muscle on the left side. After dissection of the adhesions with the help of Harmonic scalpel, a prosthetic prolene mesh (10*10 cm) was introduced into the peritoneal cavity and was fixed with the help of port closure device to cover the defect. Anatomical closure of the defect was not done. There was no postoperative complication. The patient was discharged on postoperative day 2. After 8 months follow up, patient is fine with no complaints.

Case 2
A 73 year female patient presented with pain in the upper abdomen, with occasional vomiting. She had a similar episode, one year ago. On examination, it was observed that her vitals were stable and that her abdomen was mildly distended, with tenderness in the right hypochondrium. On investigation, haemogram,
liver function test, blood urea and creatinine were normal. Sonography showed multiple cholelithiasis with thickened gall bladder wall. While performing Laparoscopic cholecystectomy, there was moderate omental adhesion to the liver and gall bladder. In the lower quadrant, omentum was stuck to the anterior abdominal wall at the lateral margin of rectus muscle, about 2 fingers below the umbilicus. Laparoscopic subtotal cholecystectomy was done, (as there were severe adhesions in the calots triangle). On separating the omental adhesion to the anterior abdominal wall with Harmonic scalpel, a 2*3 cm defect was seen. As it was a subtotal cholecystectomy with a drain in situ, we preferred the open repair of the spigelian hernia. Through a small transverse incision, the defect was repaired with 8*8 cm proline mesh. Postoperative recovery was uneventful and the patient was discharged on postoperative day 4. After 5 months of follow up, the patient is doing fine.

DISCUSSION

Spigelian hernia constitute about 0.12 to 0.2% of all abdominal hernias usually found between 50-60 years, affecting both sides and both sexes equally.[2] In 2002, Moreno Egea et al, did a medline search and found that there were only 497 cases of spigelian hernia reported in the literature till that date.[3]

SH most commonly presents at the level of the semicircular line (arcuate line of Douglas). Below this line, the Spigelian aponeurosis is a single layer and resistant to herniation. However, at the level of the semicircular line, the fascias of the oblique and transverse muscles begin to split, to allow the formation of two separate layers. It is at this juncture, that the layers of aponeuroses are at their weakest.[4] The overlying external oblique muscle and fascia remain intact, contributing to the difficulty in diagnosis of this partial abdominal wall hernia.

Its clinical symptoms are not characteristic and the preoperative diagnosis is often difficult, because SH can simulate other abdominal symptomologies. Given the rarity of Spigelian defects and lack of personal clinical experience, the diagnosis often remains elusive for years.[5]

With incarceration rates of 17%, acute presentation in 10% and the lack of consistent physical examination findings in 36% of patients, physicians need to include SH in their differential diagnoses.[4]

Imaging techniques such as ultrasonography, computed tomography and magnetic resonance imaging are complementary and cannot replace a thorough history and physical examination. An unequivocal radiologic diagnosis of an SH prior to operation is rare.

The use of the laparoscope has simplified its diagnosis, clarified its localization and facilitated the subsequent repair.[6,7] With the growing use of laparoscopy, it stands to reason that more SH will be diagnosed serendipitously at the time of other elective procedures.

Repair of this hernia has typically been accomplished with a transverse incision and primary repair. With the advent of mesh and laparoscopic techniques, other options now exist. In 1992, Carter published the first intra-abdominal laparoscopic correction.[8] Although the intra abdominal approach is simple and solid, it converts a parietal surgery into an intracavitary surgery, with the possible risk of visceral lesion and post operative adhesion. To prevent adhesions, presently there is composite mesh, which has both absorbable as well as non absorbable components, or costlier mesh like Goretex / Parietex can be used. The advantage of intra-abdominal laparoscopic approach is that, it can be done at the same time with other surgical procedures.[9] Also, there seems to potential advantage over open procedure in minimizing wound or mesh complications. In 1999, Morena-Egea et al described the first total extraperitoneal laparoscopic approach for SH.[8] As most of the SH are diagnosed postoperatively, Laparoscopic extraperitoneal approach can be the treatment of choice for preoperatively diagnosed cases of SH; intra-abdominal approach when there is an associated problem which requires abdominal surgery; and anterior open hernioplasty in cases of emergency or complication. Laparoscopic repair offers advantage over open mesh repair, including reduced morbidity, shorter hospital stay, cosmetic and perhaps the lower recurrence rate.[3]

REFERENCES