

Spigelian Hernia - A Case Report

Anand Hanumaiah¹, AnnappaKudva²

¹Assistant Professor in Department Of General Surgery, Kasturba Medical College ,Manipal, Karnataka- India.

²Professor in Department Of General Surgery, Kasturba Medical College, Manipal, Karnataka-India.

Abstract: Spigelian hernia is a rare clinical entity, it is a hernia occurring through the Spigelian aponeurosis, while its difficult to clinically diagnose spigelian hernia, there are no standardized investigations for having a definitive diagnosis and further because of its rarity, there are no definitive treatment modalities. This manuscript outlines the clinical presentation and management of an elderly patient with spigelian hernia.

Keywords: hernia, spigelian.

I. Introduction

Spigelian hernia is a rare abdominal hernia, occurring through the spigelian aponeurosis¹, it carries a significant risk of incarceration and strangulation; As their clinical presentation is often vague pain in abdomen with or without a mass or with a very small lump, radiological diagnostic tests including ultrasonography (USG), Computerized tomography scan (CT-SCAN), are not 100% sensitive leading to a delayed diagnosis¹. Further because of its rarity no large series are available comparing different treatment modalities including primary repair Vs mesh repair, or to consider a laparoscopic repair. We present a case of spigelian hernia in an elderly male patient and its management and discuss about the various investigations and the treatment modalities available for its repair, with literature review.

II. Case Report

A 58 year old markedly obese male patient presented with a painful swelling in left side of his lower abdomen since 7 days, he had noticed similar lump appearing on & off in his left lower abdomen on several occasions since 5 years which was brought on during manual work or excessive coughing each time associated with pain. But on all occasions patient was relieved of pain on resting in supine posture, and also patient noted disappearance of the swelling too. But the present episode lasted 7 days and pain or swelling was not subsiding with his regular manoeuvre, on the 7th day pain worsened requiring him to seek medical attention.

On examination – per abdomen there was a firm, tender mass of size 2x2.5cms, with some mobility in horizontal direction, but not reducible. On making patient stand and cough, impulse could be made out at the medial end of a lump, a provisional diagnosis of spigelian hernia was made and the patient was subjected to USG, the findings of which were suggestive of a spigelian hernia.

Patient was taken up for surgery under general anaesthesia, a horizontal incision was made centered on the mass, division of skin and subcutaneous fat revealed a intact external oblique aponeurosis which on opening revealed a hernia sac of size of a 5x6 cms Fig. 1 covered with preperitoneal fat protruding through a triangular defect at the lateral border of rectus muscle at the level of anterior superior iliac spine (ASIS), to the left of umbilicus Fig. 2. Sac was opened at the fundus which revealed part of omentum which could not be pushed back in to the abdomen , hence it was partly excised and rest of it was replaced back in to the peritoneal cavity. Defect was closed with non-absorbable suture and a mesh was placed over it. Fig. 3, external oblique and skin was closed in the usual manner. Post –op period was uneventful and patient was discharged on second post-op day. Patient was followed up for an year, during which he was found to be completely asymptomatic , without any complications or recurrence.

Fig. 1



Fig 2

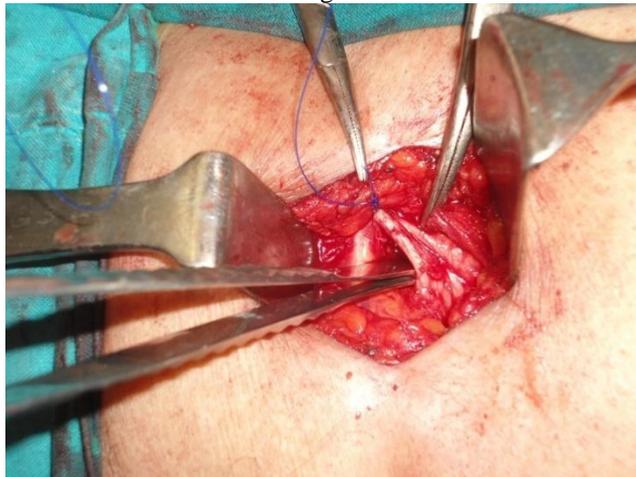


Fig.3



III. Discussion

Spigelian hernia is a hernia occurring through the Spigelian aponeurosis; Spigelian aponeurosis is the aponeurosis of rectus abdominis muscle limited laterally by semilunar line [lineasemilunaris (spigelii)] and medially by lateral edge of rectus muscle¹. Most of the spigelian hernias occur in an area 6cms above the ASIS¹; weakest area in the aponeurosis is at the level of semicircular line (arcuate line of douglas), due to splitting of fascias of oblique and transversus muscle to form two separate layers².Hernias which occur below the inferior epigastric vessels are called low spigelian hernias¹. In a large study done by Larsen dw and Farley mean age was

63 years (3 days to 94 years)², while in that conducted by Moles and Docobo mean age was 60.3 (17-92), proving it to be either congenital or acquired and most series noted that spigelian hernia were more common on the left side^{2,3,4} with few instances of bilateral hernias^{2,3}. In the Spanish review most predisposing causes were previous surgery, obesity, chronic bronchopathy, multiparity and constipation³.

In most series difficulty was noticed in the diagnosis of the hernia^{1,2,3,4}. In a study conducted by Vas and Schellinger interval between onset of symptoms and diagnosis varied from 2 days to 6 years⁴. Diagnosis on basis of history and clinical examination fails in most cases especially in small hernias, or sacs progressing in a caudolateral direction taking it outside Spigelian zone³, another contributing feature for difficulty is in most cases the overlying external oblique is not breached². Extreme difficulty is noted when hernia is small and not palpable especially in obese patients³. So if a patient presented with pain at spigelian hernia site, with point tenderness, with or without lump clinician should have a high index of suspicion for a spigelian hernia and subject the patient to USG or CT-SCAN^{1,3,4}. Although not 100% sensitive CT-SCAN is better than USG in doubtful cases². In our case as USG revealed a spigelian hernia CT-SCAN was not ordered.

Once diagnosis of spigelian hernia is made it is better to repair it as early as possible as there is a risk of incarceration^{1,2} or strangulation needing emergency surgery³. Various approaches available which can be chosen accordingly to case wise requirements local, midline, pre-peritoneal or laparoscopic repair.

The principle remain the same as for other hernias i.e, excision of the sac followed by repair of defect⁵ with non-absorbable interrupted sutures with closure of external oblique and skin in usual fashion. Although a local repair with simple closure of defect or a mesh repair would be sufficient as done in our case, Moreno Egea et al in a randomized clinical trial demonstrated advantage of laparoscopic repair over open repair in terms of morbidity and hospital stay⁶. A new repair technique using pre-shaped polypropylene umbrella plugs has also been successfully tried in a small series of 6 patients⁷ but has risk of penetrating into the bowel if it comes into direct contact.

While for strangulated hernias a midline laparotomy is recommended by Moles et al³, Spangen proposed the pre-peritoneal route for non-palpable hernias¹, this approach through a vertical incision, allows good visualization, a preperitoneal exploration and treatment of other associated hernias and is appropriate for an exploratory laparotomy¹.

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