

Case Report

Laparoscopic Repair of Spigelian Hernia : A Case Report

Rajesh Ballal¹, KhamarJaha Banu²&Likith Rai³¹Professor, ²Assistant Professor, ³Post Graduate

Department of General Surgery, K. S. Hegde Medical Academy, Nitte University, Mangalore, Karnataka, India.

*Corresponding Author : Likith Rai

Post Graduate, Department of General Surgery, K. S. Hegde Medical Academy, Nitte University, Mangalore - 575 018, Karnataka, India.

Mobile : + 91 95354 33212 E-mail : likithraais@gmail.com

Received : 12-06-2015

Review Completed : 14-07-2015

Accepted : 30-04-2016

Keywords : spigelian hernia, dual mesh, laparoscopic repair

Abstract :

Spigelian hernia is protrusion of the viscera through the spigelian fascia. They account for only 2% of all abdominal wall hernias and are relatively associated with higher risk of complications. It was first reported by Klinkosch in 1764. The treatment of choice is open hernioplasty. Here we report a case of 65 yrs. old lady who underwent laparoscopic transabdominal underlay repair for spigelian hernia concluding that minimal assess surgery is a viable modality of treatment of spigelian hernia.

Access this article online

Quick Response Code



Background

A spigelian hernia is a congenital defect in the transverse aponeurosis fascia. Ideally anterior abdominal hernioplasty is used for the repair. We report a case of spigelian hernia which was repaired laparoscopically in our setup.

A 65yrs. old lady came with complaints of swelling in the (L) lower abdomen since past 10 yrs. which was initially small and gradually progressed to attain present size. Swelling increase in size on coughing and straining but reduced partially on lying down. Lady gives history of LSCS 40 yrs.ago. She is a known diabetic on treatment. A 25X30 cm swelling was seen in the anterior abdominal wall in the Left Iliac Fossa extending 1 cm short of midline medially upto left anterior superior iliac spine laterally, inferiorly extending from the groin crease upto the level of umbilicus superiorly. Expansile impulse on cough was noted, skin over the swelling was stretched. Pfannanstiel incision noted healed by primary intention. Hernial orifices are

normal. On palpation swelling was soft in consistency, completely reducible and reduces with gurgle. Defect of 5X5 cm noted in the abdominal wall 4 cm below and lateral to umbilicus. This defect was separate from the Previous Pfannensteil Incision.

Method

Patient was operated in supine position and under general anaesthesia. 3 ports were used for the repair. 11 mm umbilical port 10 mm port (L) palmar point port and 5 mm port was placed in right mid clavicular line. After creating Pneumoperitoneum an initial diagnostic laparoscopy was performed. Dense adhesions were noted between the small bowel and anterior abdominal wall in the area of the previous pfannensteilscar. Small bowel was noted herniating through the iliac defect separately seen from the scar in the Left Fossa. Adhesiolysis was done initially. Small bowel in the hernia sac was reduced. A defect of 6 X6 cm was noted in the anterior abdominal wall with well-defined margins. A 10 X 15 cm dual mesh (LOTUS) was placed with

adequate overlap and the defect was closed. The mesh was tacked to the anterior abdominal wall around the defect. Post-operative period was uneventful, and patient was discharged on POD 2

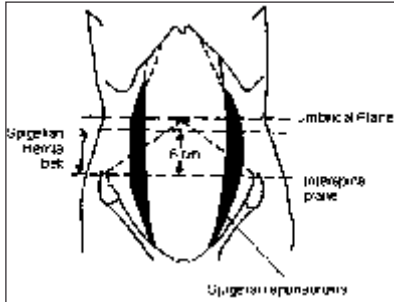


Figure 1 : Diagrammatic representation of spigelian belt

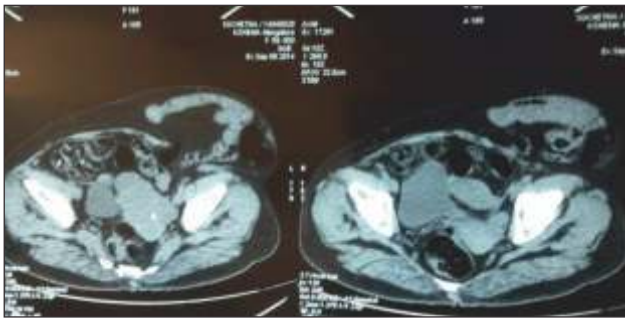


Figure 2 : Pre op CT showing defect in the anterior abdominal wall with herniation of small bowel

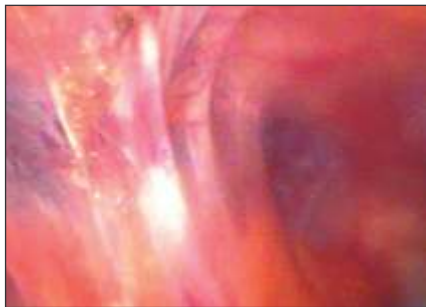


Figure 3 : Intra op image showing adhesions

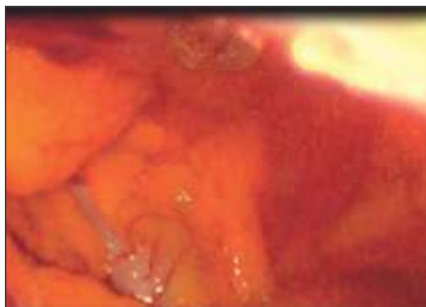


Figure 4 : Intra op images showing small bowel herniating through the defect

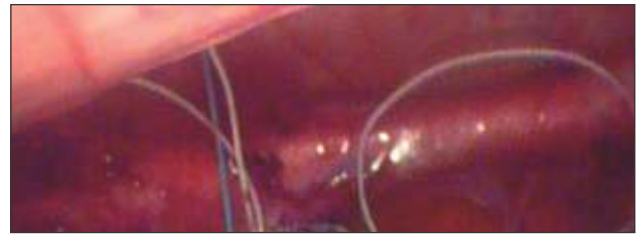


Figure 5 : Intra op image showing size of the defect following reduction of the contents

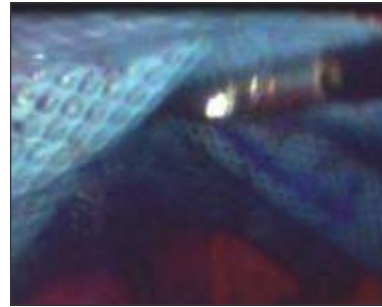


Figure 6 : Intra op image showing placement of dual mesh



Figure 7 : Post-operative image of the patient

Discussion

Spigelian hernia is protrusion of sac of the peritoneum or the viscus through the defect in the spigelian fascia. Spigelian fascia is located along the spigelian line through the transverse abdominis aponeurosis close to the level of arcuate line.¹ usually spigelian hernias occur in "spigelian hernia belt" which is a 6cm wide transverse zone which lies above interspinal plane (between anterior superior iliac spine on either side)²

Spigelian hernia represents 2% of the anterior abdominal wall hernias.³ Diagnosis needs to be confirmed on the basis of history examination findings and imaging modality. Predominant symptom with patient presented was lump in the abdominal wall. However patients can present with pain abdomen, or an irreducible lump. Imaging modality

helps in detecting the defect. Since they have a high rate of complications like incarceration and strangulation spigelian hernias need surgical repair⁴. Ideally most of the repairs are done on selective basis. Laparoscopic repairs include preperitoneal repair with prolene mesh, dual mesh, onlay mesh repairs using PTFE mesh⁵. We performed a laparoscopic transabdominal underlay repair with dual

mesh. No post-operative complications were seen and patient was discharged on post-operative day 2.

Conclusion

Laparoscopic repair of spigelian hernia is a viable alternative in management of Spigelian Hernias in centres with adequate laparoscopic surgeons.

References

1. Bailey N love text book of surgery 26th edition, page 966
2. Spigelianhernia: surgical anatomy, embryology and technique of repair. Skandalakis PN, et al. Am Surg. 2006 Jan; 72(1):42-8 (PUBMED)
3. Ng Wt. Incidence and outcome of surgical repair of spigelian hernia. Br J Surg. 2004; 91:640-644 (PUBMED)
4. Tarnoff M, Rosen M, Brody F. Planned totally extraperitoneal laparoscopic spigelian hernia repair. Surg Endosc. 2002; 16(2):259 (PUBMED)
5. Appeltans Bm, Zeebregts Cj, Cate Hoedemaker HO. Laparoscopic repair of a spigelian hernia using an expanded PTFE mesh. Surg Endosc. 2000; 14(12):1189 Epub 2000 Sep 28 (PUBMED)