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Original Research Article

Primary lumbar hernia: a rarely encountered ventral hernia

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ABSTRACT

Ventral hernia is a fascial defect located on the abdominal wall. Primary ventral hernias are named as umbilical, epigastric, spigelian and lumbar hernias. A lumbar hernia is a parietal wall defect that may occur anywhere in the lumbar region between the 12th rib and the iliac crest. A 47-year-old female, came with complaints of mass in left lower abdomen since 2 months. On clinical examination a defect of 8 × 8 cm was felt in the left lumbar region with positive cough impulse. CECT abdomen and pelvis was done to confirm lumbar hernia. Patient underwent mesh repair for the same. Lumbar and flank hernias are uncommon and are a challenge to treat for any general surgeon. Surgery is considered gold standard either an open mesh repair or laparoscopically.

Keywords: CECT abdomen pelvis, Lumbar hernia, Mesh repair, Ventral hernia

INTRODUCTION

Ventral hernia is a fascial defect located on the abdominal wall. Primary ventral hernias are named as umbilical, epigastric, Spigelian and lumbar hernias. A lumbar hernia is a parietal wall defect that may occur anywhere in the lumbar region between the 12th rib and the iliac crest. Herniation can occur either through superior (Grynfelt) triangle bounded by sacrospinalis, 12th rib and posterior border of internal oblique or inferior (Petit) triangle bounded by latissimus dorsi, external oblique and iliac crest.[1] It can be primary or secondary to previous renal surgery.

Differential diagnosis includes lipoma, cold abscess or a pseudo hernia due to local muscular paralysis. Lumbar Hernias are rare and only 300 cases have been reported till date.[2] Here we report a case of primary inferior triangle hernia which was managed by mesh repair.

CASE REPORT

A 47-year-old female, housewife by occupation came with complaints of mass in left lower abdomen for 2 months which was insidious in onset and progressed from initial 2 × 2 cm to the present size of 8 × 8 cm, increases on coughing and reduces on lying down. Not associated with pain, nausea or vomiting. Patient was a known case of hypertension and hypothyroidism on regular treatment since past 2 years.

Patient was a right renal donor following which she developed right lumbar hernia 2 yrs back and mesh repair was done for the same. No history of recurrence on the right side.

On clinical examination a defect of 8 × 8 cm was felt in the left lumbar region, contents felt as bowel, reducible, cough impulse was present (Figure 1 and 2). CECT abdomen confirmed the diagnosis of left lumbar

hernia (inferior triangle defect) with contents as bowel (Figure 3).

After due consent patient was taken to operative room, a horizontal incision was given in the left lumbar region , dissection carried out till the hernial sac which was separated from the surrounding fascia, opened, contents noted as bowel reduced and defect closed with nonabsorbable prolene sutures (Figure 4-6). A pre-peritoneal mesh was placed and the abdomen closed in layers. Post op period was uneventful.

Figure 1: Left side mass abdomen.

Figure 2: Left lumbar bulge on coughing.

Figure 3: CECT abdomen showing left lumbar (triangle of Petit) defect with bowel as content.

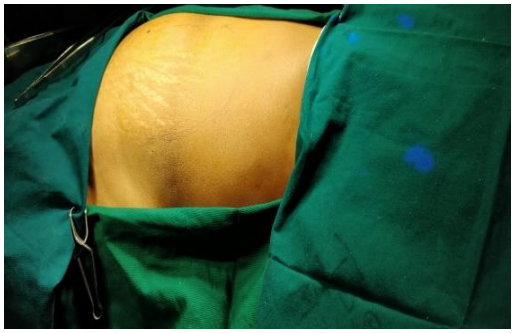

Figure 4: After draping adequately exposed surgical field.

Figure 5: Hernial sac.

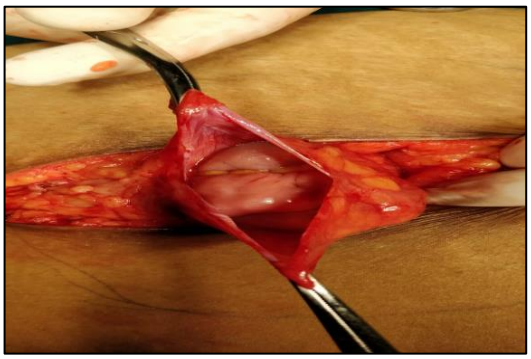

Figure 6: Contents as bowel.

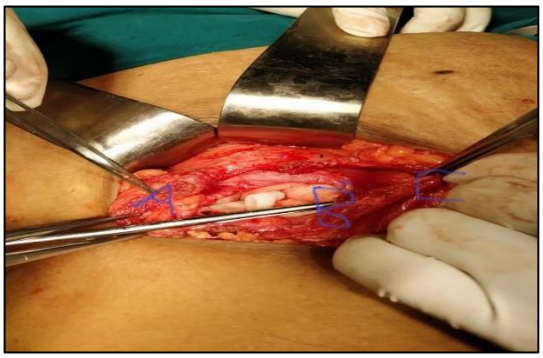

Figure 7: Boundaries of petit triangle. (A) External oblique, (B) iliac crest and (c) latissimus dorsi.

Figure 8: Preperitoneal mesh repair.

DISCUSSION

Lumbar hernias are classified dependent on region of involvement and cause. While they are all the more often situated in the superior lumbar triangle, this patient had herniation through the inferior triangle, which is bounded by the iliac crest, external oblique and latissimus dorsi muscle. About 20% of lumbar hernias are present since birth and might be associated with other congenital defects.[3] Remaining 80% are obtained and further divided as primary or secondary.[4] Primary hernias are often a result of elevated intra-abdominal pressure and have association with aging, perpetual infection, or denervation, all of which can prompt muscle atrophy in the flank.[5] Secondary lumbar hernias are frequently found in relation with previous surgeries, trauma, or abscess. Contents may include colon, retroperitoneal fat, kidney, small bowel, or spleen.[6] CT scan is the investigation of choice. Surgery is considered gold standard either an open mesh repair or laparoscopically. Even muscular flaps are used with the basic principal offering a tension free repair. In the case mentioned above open approach was advocated considering the patient factors, post op result was satisfactory with no recurrence reported until one year of follow up.

CONCLUSION

Lumbar and flank hernias are uncommon and are a challenge to treat for any general surgeon. Their anatomic location, and vicinity to major neurovascular structures add to their unpredictability. Patients should be advised in the preoperative period about results and complications following mesh repair. A preperitoneal mesh repair usually gives a good result. The conventional laparoscopic approach is related with a shorter length of hospitalization, less postoperative pain relieving and a lower rate of complications. In spite of the fact that there are presently no available reports of robotic transabdominal preperitoneal mesh repair for flank and lumbar hernias, this methodology gives the advantages of both the open and minimally invasive approach and may at last supplant the laparoscopic procedure.

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