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Case Report

The primary lumbar hernia with multiple defects: a rare case

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ABSTRACT

Lumbar hernia is a rare entity of abdominal wall hernia. Due to varied presentation it poses a challenge in diagnosis and management to attending surgeon. The requirement of preoperative imaging and clinical examination has indispensable role in the diagnosis and surgical (open or laparoscopic) approach is the only treatment option. We are presenting a case of 44 year old male, diagnosed as lumbar hernia with multiple defects and successfully managed by laparoscopic mesh hernioplasty. The primary lumbar hernia is a rare entity that a surgeon may encounter once in his lifetime making it an interesting surgical challenge. The adequate knowledge of preoperative imaging and anatomy are indispensable. With advances in minimally invasive surgery, it can be applied to patients with lumbar hernia and management requires a more tailored approach. This condition can be managed by laparoscopic approach successfully.

Keywords: Lumbar hernia, Primary lumbar hernia, Laparoscopy, Mesh hernioplasty, Computed tomography

INTRODUCTION

Lumbar hernia is the protrusion of intra peritoneal or extra peritoneal contents through a defect of the posterior lateral abdominal wall.[1] Over the centuries about 300 cases of primary lumbar hernia have been reported making it the rarest form of abdominal wall hernia.[2] The 95% of lumbar hernia occur within both inferior and superior lumbar triangles. The congenital types are around 20%.[3] Most common cause of the primary acquired lumbar hernia is increases intra abdominal pressure. Secondarily associated with prior surgical incisions, trauma and abscess formation. Surgery is the only treatment of choice for lumbar hernia.

CASE REPORT

A 44 year old male without co morbidities presented with a swelling over left lumbar region since two years, associated with dragging sensation and he was being treated symptomatically over 2 years with analgesics. He had noticed a swelling over the left side of his mid-back.

On clinical examination there was a s welling of size 10×15 cm present in the left lumbar region, obliquely oriented and oblong in shape, extending from 3 cm below the 12th rib to 6 cm above posterio superior iliac spine vertically and 3 cm lateral to the midline to 4 cm medial to the mid axillary line horizontally with well defined margin, skin over the swelling was normal. The expansile cough impulse was present. All inspection finding confirmed by palpation. No local rise of temperature, no tenderness, soft in consistency, skin over the swelling is pinchable. The margins are well delineated. Consequently, on examination was found to have a primary acquired lumbar hernia arising from the deep superior lumbar triangle of Grynfelt and computed tomography showed it lumber hernia. Laparoscopic mesh hernioplasty was done. The operative findings were as

mentioned below that the patient was in right lateral decubitus position and pneumoperitoneum was created. Three ports were inserted as mentioned that 10 mm port at 10 cm lateral to umbilicus and two 5 mm ports were inserted (one at left hypo chondrium and left iliac fossa). Trans peritoneal approach was used. Peritoneum dissected and mobilisation of contents (omentum and splenic flexures) were done. The contents of sac (descending colon and omentum) were reduced. Three defect size was 2×3 cm, 3×1 cm and 2×4 cm present. The space created well around defect and titanized polypropylene mesh of size 15×15 cm was placed and fixed with suture with more than 5 cm overlap around the defect. He was successfully managed by laparoscopic mesh hernipolasty and he had good outcome.

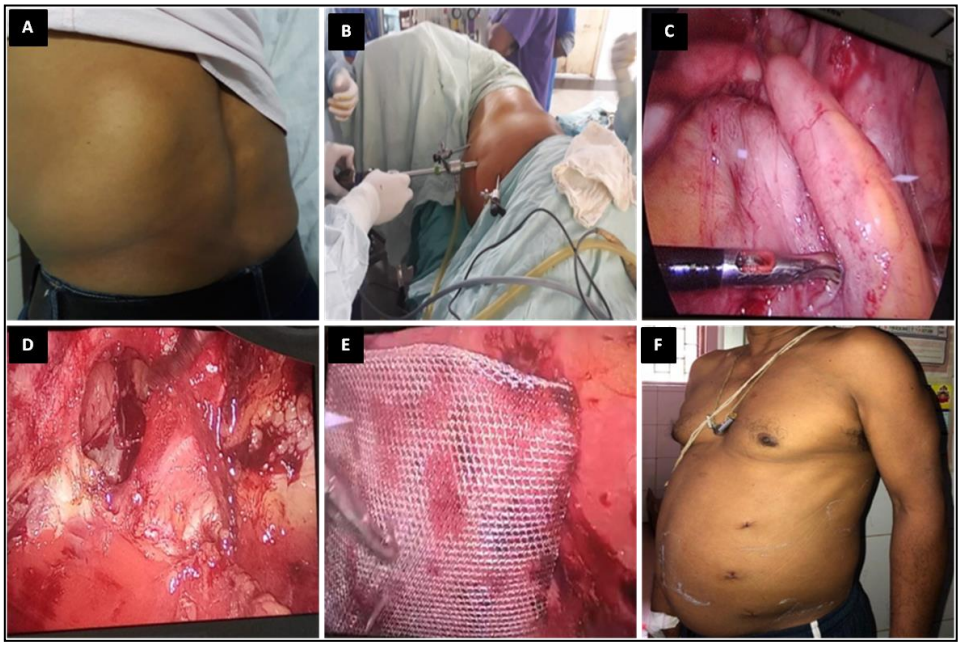

Figure 1: Preoperative swelling in left lumbar region (superior lumbar triangle). (B): Intra operative position of the patient and port placements. (C): Intra operative picture shows thickened opening of lumbar hernia and lateral abdominal wall. (D): Intra operative adhesions between hernia contents and around size approximately 5×4 cm of opening of hernia. (E): Polyprolene mesh placed at sub lay to cover hernia defect. (F): Post operative picture of the patient.

DISCUSSION

Lumbar hernias are classified dependent on region of involvement and cause. Lumbar hernia commonly occurs through superior lumbar triangle. Like in our index case the hernia is coming out from superior lumbar triangle and extending towards inferior triangle. While they are all more often situated in the superior lumbar triangle, inferior triangle which is bounded by the iliac crest, external oblique and latissimus dorsi muscle.[4] About 20% of lumbar hernias are present since birth and might be associated with other congenital defects. The remaining 80% of lumbar hernias are divided into as primary or secondary.[5] The primary hernias are often a result of elevated intra-abdominal pressure and have association with aging, perpetual infection, or denervation. Secondary lumbar hernias are frequently found in relation to previous surgical procedures, trauma or abscess. Hernial contents may include colon, retroperitoneal fat, kidney, small bowel or spleen. The computed tomography is the investigation of choice.[6] Surgery is considered gold standard either an open mesh repair or laparoscopic repair.[7] Laparoscopic repair like transabdominal preperitoneal repair (TAPP) ,totally extra peritoneal repair (TEP) and trans abdominal partial extra peritoneal repair have been reported in many studies of lumbar hernia repair.[8] In one report the primary lumbar hernia is repaired by sub lay kugel patch.[9] Sometimes even muscular flaps are used with the basic principal offering a tension free repair. In our index case such big size lumbar hernia, successfully managed with laparoscopic mesh repair and post operative result was satisfactory with no recurrence reported until one year of follow up.

CONCLUSION

The primary lumbar hernia is rare entity, so every surgeon may encounter once in his life. Their anatomic location, and vicinity to major neurovascular structures add to their unpredictability. The advances in minimally invasive surgery, this rare entity can be managed by laparoscopic approach. The choice of approach open or laparoscopic depends on hernia size and patients factors.

So the laparoscopic hernia repair is the first choice of treatment for lumbar hernia.

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