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Case Report

## A Rare Case of Superior Lumbar Hernia - A Case Report with Review of Literature

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### ABSTRACT

Lumbar hernia is a rare abdominal hernia and clinical suspicion is necessary for diagnosis. This unusual situation is relatively a rare defect of the posterior abdominal wall. We report the case of a 41-year-old gentleman with a reducible superior lumbar hernia. The hernia was repaired with prolene mesh. A lumbar or flank mass should always raise suspicion of a lumbar hernia. Adequate surgical treatment should be planned on the basis of etiology and hernia size.

**Key words:** Lumbar Hernia, Prolene mesh

### INTRODUCTION

Lumbar hernias are rare among all other hernias. Hafner et al. [1] stated that general surgeons will get only one opportunity to repair a lumbar hernia during their life time. However, due to the increased incidence of traumatic etiology and the advances in diagnostic methods available, lumbar hernias are encountered more frequently in current practice. Lumbar hernia was first suggested by P. Barbette in 1672 and R.J.C. Garangeot published a case for the first time in 1731. [2] Since then, only about 315 cases have been reported. [3] The lumbar region is bordered superiorly by the 12th rib, inferiorly by the iliac crest, medially by the erector spinae muscles and laterally by the external oblique muscle. Lumbar hernias occur through two potential weak spaces, which are superior and inferior lumbar spaces. Inferior lumbar space is bordered by the iliac crest inferiorly, external oblique muscle laterally, latismusdorsi muscle medially. Superior lumbar space which is the larger one was

identified. It is an inverted triangle and the base is formed by 12th rib and the lower edge of the serratus posterior inferior muscle, anterior boundary is formed by the internal oblique muscle and the roof is formed by external oblique and latissimus dorsi. [3] There are different classifications of the lumbar hernias apart from the site of their occurrence. They can be congenital or acquired. Acquired hernias can be primary/spontaneous and secondary. Secondary lumbar hernias can occur due to trauma, infections or following surgical interventions. Primary spontaneous hernias are the rarest among all the presentations.

### CASE REPORT

A 41 year old gentleman presented to the surgical OPD with complaints of swelling in left lumbar region for last 8-9 months. Cough impulse test of the swelling was positive. There was no history suggestive of irreducibility. There was also no history of trauma, surgery done in past or localized muscular paralysis. On

examination there was a single oval swelling of 4x4 cms arising from the superior lumbar triangle with an expansile impulse on coughing. It was non-tender and reducible. The opposite side lumbar region and other hernial orifices were normal. The abdominal muscle tone was good. Lipoma and cold abscess were ruled out. Patient was thoroughly investigated. Computed tomography (CT) scan was done which confirmed the diagnosis of superior lumbar hernia. The posterior abdominal wall was opened layer wise. The posterior abdominal wall defect of 3x2cm approximately was identified and the content was reduced, Fig.1 and 2. The content which was herniating through this defect was reduced and closed. Prolene mesh repair was done. The mesh was anchored to the posterior abdominal wall, Fig. 3

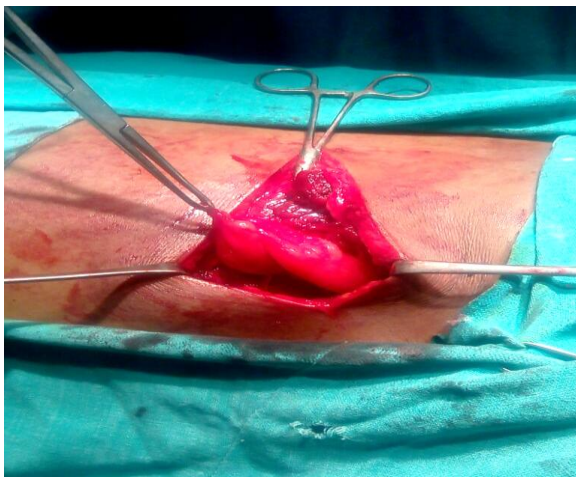


Fig.1 Contents herniating through the hernial orifice

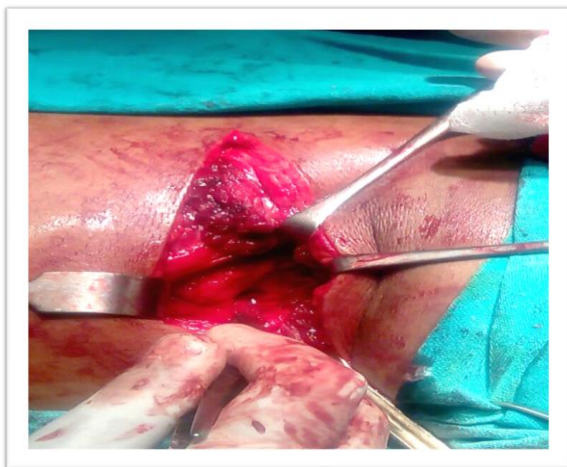


Fig.2 Posterior abdominal wall defect of 3x2 cm approx.

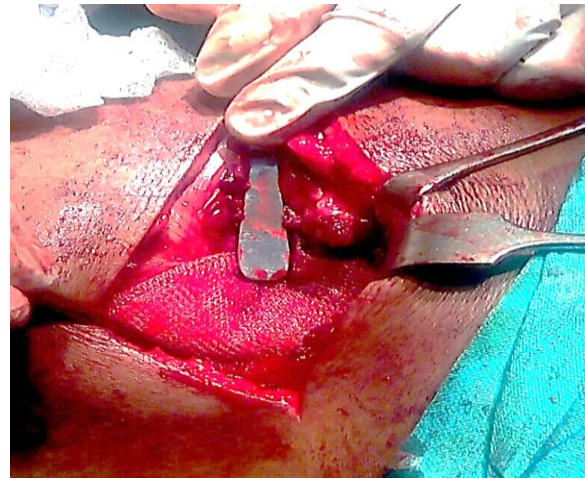


Fig.3 Placing Prolene Mesh after closing the defect

## DISCUSSION

Lumbar hernias are rare and a recent review reported approximately 315 cases. [4] They are classified as congenital, generally associated with other malformations, or acquired, manifesting in adults spontaneously or secondary to trauma or surgical incision. [5] Lumbar hernia may occur in two weak areas of the posterolateral abdominal wall: the superior lumbar triangle of Grynfeltt, which is the more common site, and the inferior lumbar triangle of Petit. In large hernias the defect wall can affect whole of the lumbar region. [6,7] Symptomatology, it can present with lower back pain. Small hernias may be asymptomatic except for a palpable mass. In less than 10% of cases, the onset is acute with bowel obstruction. [8,9] Clinical suspicion is fundamental to guide imaging diagnosis because extra peritoneal fat herniated through a wall defect may mimic a lipoma. Computed tomography (CT) in patients with a suspected hernia can confirm the diagnosis adding information on parietal defect size and hernia. [10,11] In our case since defect was small, CT Scan was done which confirmed the diagnosis of superior lumbar hernia. Adequate surgical treatment depends largely on the type and size of the hernia. Lipoma and cold abscess can form differential diagnosis and patient should be investigated to rule out other conditions. X-ray lumbo-sacral spine/CT scan is done wherever indicated.

## CONCLUSION

Lumbar hernias are rare. A good history and general physical examination can rule out most of the differential diagnoses especially lipoma and cold abscess in our case report. The operative technique should be planned based on the size of the hernia, location, contents, etiology, chances of recurrence and the availability of facilities and expertise in the hospital.

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