International Surgery Journal
Radhakrishna V et al. Int Surg J. 2017 Apr;4(4):1472-1474
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: http://dx.doi.org/10.18203/2349-2902.isj20171163

Case Report

Bilateral superior lumbar hernias: a case report and review of literature

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Received: 25 January 2017
Accepted: 23 February 2017

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ABSTRACT

Primary lumbar hernias are uncommon. They present with backache, flank pain, occasional nausea, feeling of weight or dragging sensation in the lumbar region. When they are small, they may be unnoticed leading to significant morbidity with the patient seeking referrals and therapy with no resolution of symptoms. They should be repaired in time to avoid dreaded complications of obstruction and strangulation. A sixty-year man presented with swelling and pain in the left loin. On evaluation, he was found to have bilateral superior lumbar hernias, which was treated with mesh repair.

Keywords: Grynfeltt-Lesshaft triangle, Superior Lumbar hernia, Obstruction

INTRODUCTION

Primary lumbar hernias are rare, with only about 300 cases been reported in the literature till date.[1, 2] Among the lumbar hernias, the superior lumbar hernia is uncommon.[1,2] We report a case of bilateral superior lumbar hernia.

CASE REPORT

A sixty-year gentleman presented with a swelling on left side of lower back for past ten years with dull aching pain of two years duration. The swelling used to appear on coughing or straining and disappear on compressing it. There was no history of chronic cough, straining to urinate or defecate.

On examination, this lean patient had a globular swelling measuring 10cm x 8cm x 4cm in the left lumbar region with a positive expansile impulse on cough (Figure 1). It was nontender and reduced with a gurgle. The opposite lumbar region showed a swelling of similar characteristics but the measurements were 8cm x 4cm x 2cm (Figure 1). Other known hernial orifices were normal. The abdominal muscle tone was poor.

Figure 1: Bilateral lumbar hernias.

He was diagnosed as bilateral superior lumbar hernias and was posted for hernioplasty.

There was a defect of 3cm x 4cm in the transversalis fascia which was closed. The hernia site was reinforced with polypropylene mesh and few sutures taken to anchor the mesh (Figure 2).

Post-operative period was uneventful.

Figure 2: Intra-operative image showing polypropylene mesh reinforcing the defect.

DISCUSSION

Lumbar hernias are rare. DeGarangeot reported the first known case in 1731, the hernia being reduced at autopsy; Petit, in 1783, described a strangulated hernia emerging through the inferior lumbar triangle, which now bears his name.[3,4] A century later, Grynfeltt[5] described a hernia through the superior lumbar triangle, distinguishing it from the inferior lumbar triangle. In 1870, Lesshaft independently confirmed the existence of a separate superior lumbar triangle and reported a similar case.[6]

The superior lumbar hernia is uncommon one amongst these both. Grynfeltt-Lesshaft triangle lies deep to latissimus dorsi bounded superiorly by 12th rib, medially by quadratus lumborum and laterally by internal oblique.[5] Floor is formed by transversalis aponeurosis.[11] The transversalis aponeurosis is thinnest at its uppermost part, where 12th intercostal vessels and nerves exit; it's the region where herniation occur often.[7]

Predisposing factors include age, obesity, extreme thinness, chronic bronchitis, strenuous physical activity, and trauma.[8] The loss of fatty tissue enables the rupture of neurovascular orifices that penetrate lumbodorsal fascia, and elevated intra-abdominal pressure acts as an initiating element.[9]

The clinical presentation of Lumbar hernia is mysterious and non-specific. This consists of flank pain, back ache, nausea, feeling of weight or dragging sensation in the lumbar region. In small lesions or in obese patients, no abnormality may be detected on physical examination. The delay in diagnosis results in major morbidity with the patient pursuing referrals and remedy with no resolution of symptoms. These hernias can gradually increase in size over time and may take large extents. Sooner or later a soft reducible swelling can be palpable in the lumbar region.[10] Once a lumbar bulge is noted it is easy to make a clinical diagnosis. The differential diagnoses at this stage include fibroma, lipoma or other soft tissue tumors. An abscess or a hematoma may also mimic a lumbar hernia.[10]

The content of the hernia can be kidney, retroperitoneal fat, colon, omentum, appendix, small bowel, ovary or spleen. In obese patients identifying the swelling is particularly difficult. Intestinal incarceration occurs in 25% patients but strangulation is less likely as the neck of the hernia sac is wide.[11]

Lateral or oblique x-ray abdomen may show gas-filled bowel loops lying outside the abdominal cavity. Upper or lower gastrointestinal contrast studies are useful in defining the herniated bowel. An intravenous urogram helps in visualizing the displacement of the kidney or ureter into the hernial sac. A low index of suspicion and presence of fat makes ultrasonography a less sensitive investigation for lumbar hernias. Computed tomography accurately distinguishes the fascial and muscle layers, identifies the presence of a defect in these layers, visualizes the contents, and differentiates a hernia from an abscess, soft-tissue tumor or a hematoma.[12,13]

The objective of hernia repair is to abolish the defect and to build an elastic and firm abdominal wall that will resist the stress of daily physical deeds. A lumbar hernia should be repaired early, as it is susceptible to obstruction and strangulation.[14] An extensive range of techniques have been described for repair of lumbar hernias. These include anatomical closure, use of musculofascial flaps, overlapping of the aponeuroses, prosthetic meshes, and laparoscopic mesh repair.[11]

CONCLUSION

Superior lumbar hernias are rare entities with only a few case been reported in the literature. High index of suspicion and early treatment prevents complications.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Radhakrishna V, Tanga SM. Bilateral superior lumbar hernias: a case report and review of literature. Int Surg J 2017;4:1472-4.