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Case Report

Congenital lumber hernia in a 2 year old child: a case report and review of literature

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ABSTRACT

Lumbar hernia is very uncommon. It constitutes less than 1% of all abdominal hernias. It can be congenital or acquired. Congenital lumber hernia is rarer still with less than 50 cases reported so far in literature. We present a case report of 2 year old male child who presented with a left sided large lumber hernia since birth, otherwise asymptomatic, due to rarity of the condition and difficulties in management. Anatomy of congenital lumbar hernia is discussed. All cases of congenital lumbar hernia should be investigated for other congenital anomalies. Lumber hernias can be managed by open as well as laparoscopic surgery. Open surgery is preferable as the anatomy is usually distorted and there may be other congenital anomalies which are associated with it.

Keywords: Congenital, Lumber, Hernia

INTRODUCTION

Congenital lumber hernias are uncommon. They account for onlay 10% of all the lumbar hernias.[1,2] Congenital lumbar hernia may associated anomalies of musculoskeletal system, kidneys and spine. Less than 50 cases of congenital lumbar hernia have been reported in English literature making it a rare entity.[3,4] We report a case of congenital lumber hernia which was not associated with any other anomalies except the hypo plastic musculature of lumber region and was surgically managed by onlay mesh over an anatomical repair.

CASE REPORT

A two year old male child presented with a soft swelling in the left lumber region since birth. The swelling increased on crying and extended from left subcostal region to the iliac crest. (Figure 1, 2) An expansible cough impulse was present. There was a defect in musculature measuring about 7 cms in size and through which the bowel loops were palpable. There was no other associated complaint related to GI and urinary system and the child was otherwise well nourished. An ultrasound abdomen showed a defect in the musculature in left lumber region of 7x5cms with herniating bowel loops.

Figure 1: Left lumber hernia presenting as a globular bulge in left frank, front view.

Both kidneys were normal and no other anomaly was found in the intra peritoneal organs. X-ray chest did not show any abnormality in the ribs. A CT scan was not done to prevent unnecessary radiation to child as the diagnosis was clear.

Figure 2: Side view of left lumber hernia occupying entire left flank.

The child underwent open surgery after preparation. A left flank incision was used over the hernia and the sac was separated from surrounding atrophied muscles and fascia. The sac was dissected completely all around and was pushed in. Due to the large size of the defect it was decided to use an onlay mesh over the repair rather than a standard pre peritoneal mesh placement. The attenuated muscles and fascia were identified and mobilized and repaired over the defect by double breasting technique.

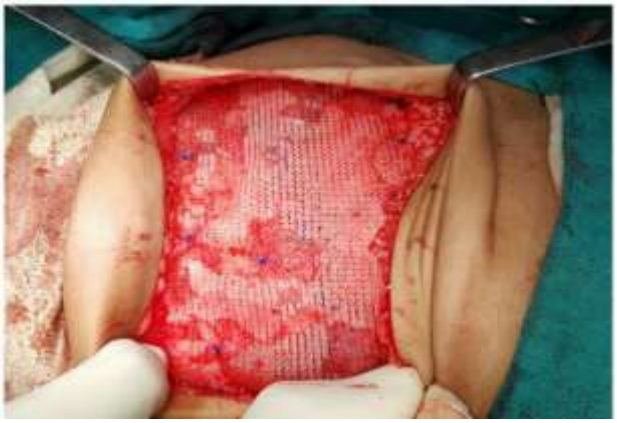

Figure 3: The intraop picture showing the placement of onlay mesh over the anatomical repair by double breasting of muscles and fascia.

A polypropylene mesh was placed over the repair as an onlay and a fixed to fascia and muscles by interrupted prolene sutures (Figure 3). A closed suction drain was inserted in the subcutaneous tissue and the skin closed by staplers. Post op course was uneventful except mild seroma collection which responded to dressings. The child is doing well so far in the follow up.

DISCUSSION

The boundaries of lumbar region are 12th rib superiorly, erector spinae muscles medially, crest of the iliac bone inferiorly, and the external oblique muscle laterally. This space is further divided into superior lumbar triangle of Grynfeltt-Lesshaft and inferior lumbar triangle of Petit.[5] Lumbar hernia is a rare hernia with onlay 250-300 cases in literature. It herniates through superior or inferior triangle. Herniation through inferior triangle is more common.[6] The hernial sac may be empty, may contain various intraperitoneal organs as the spleen, omentum, small bowel, appendix and colon , retroperitoneal fat, kidney, omentum, colon, stomach, and ovary. Thorek proposed a classification based on contents of the hernia to include the presence or absence of peritoneal sac.[7] This classification is useful to describe intraoperative findings as well as helpful in determining the ideal operative procedure. He described three categories: a) Lumbar hernia containing no peritoneum (extra peritoneal) b) Hernia in which peritoneum is adherent to viscus or has followed the viscus through hernial ring (Para peritoneal) c) Hernia in which the peritoneum completely surrounds the contents of hernia (intra peritoneal). Strangulation in lumbar hernia is unlikely, because of large size of lumbar hernia ring and broad neck of sac.[8]

Onlay about 10% of all lumbar hernias are congenital, and mostly unilateral. The majority of patients present early usually in the first or second year of life as in the case presented. A variety of anomalies of the musculoskeletal system are observed in these patients. These include absent ribs, hemi vertebrae, and posterior spinal dysraphism. These constitute the entity: lumbocostovertebral syndrome. Open surgical treatment is the mainstay of management. Though there are case reports suggesting laparoscopic approach, technically open surgery is still the preferred method because of the ability to handle the distorted anatomy better.[9-11]

CONCLUSION

Lumbar hernia rarely results in strangulation. But they increase in size and mainly present with increasing bulge in the flank. Congenital lumber hernia should never be considered in isolation but the surgeon should be careful in investigating the child to identify other anomalies. Diagnosis of congenital hernia should alert the surgeon, prompting further investigations for various other congenital orthopaedic, neurological, and urological anomalies. Open prosthetic repair continues to be the procedure of choice for treating such hernias. The corrective surgical procedure becomes more complex as hernial defect enlarges. Reconstruction is challenging aspect of lumbar hernia surgery especially in large defects, like our case.

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