

A Congenital Superior Lumbar Hernia of the Grynfeltt and Lesshaft triangle

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ABSTRACT

Summary: We describe an 11-year-old female child presenting with a congenital superior lumbar hernia, this was diagnosed clinically and supported on radiological basis. It was successfully treated by surgery.

Key words: Lumbar Hernia, Congenital

INTRODUCTION:

Superior lumbar hernia is one of the uncommon hernia. It can occur individually or in association with other congenital abnormalities or acquired following trauma or previous surgery. We report a case of congenital superior Lumbar hernia without other anomalies which was treated surgically at our hospital.

Case Report:

An 11-years old female, present with bulging mass in the left lumbar region onset since birth (Fig. 1). The lesion was asymptomatic, and its size had been increasing progressively since onset. Her mother denied any history of local trauma, she didn't have any history of previous surgery. Physical examination showed an ovoid mass in the left superior lumbar triangle (Figure 1). The mass was increasing in size on coughing and Valsalva maneuver and easily reduced or completely disappeared on lax state of abdomen on the right decubitus position. The bulging mass was just below the lowermost rib anterior or sacrospinalis muscle. By palpation the bulging mass was soft in consistency, measuring (3×6cm) furthermore defect measured (7×3cm diameter) was easily felt in the lateral

The patient was submitted to ultrasonography with a diagnostic hypothesis of lumbar hernia. The exam showed: echo-free swelling of soft tissue in the left lumbar region with normal size kidneys, normal ureters. Liver also normal in size and texture. X-ray of lumbar and thoracic vertebrae revealed abnormalities, no evidence of any bony defects or scoliosis. A diagnosis of Superior lumbar hernia was established and the patient was referred to the surgical department for operation. During operation, the defect was (7×3cm) and it was primarily repaired by interrupted (Fig. of 8 suture) of non-absorbable suture material (Nylon-0). Figure 2 demonstrate the fecial defect. Figure 3 demonstrates hernia sac.

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Figure1: Superior lumbar Hernia

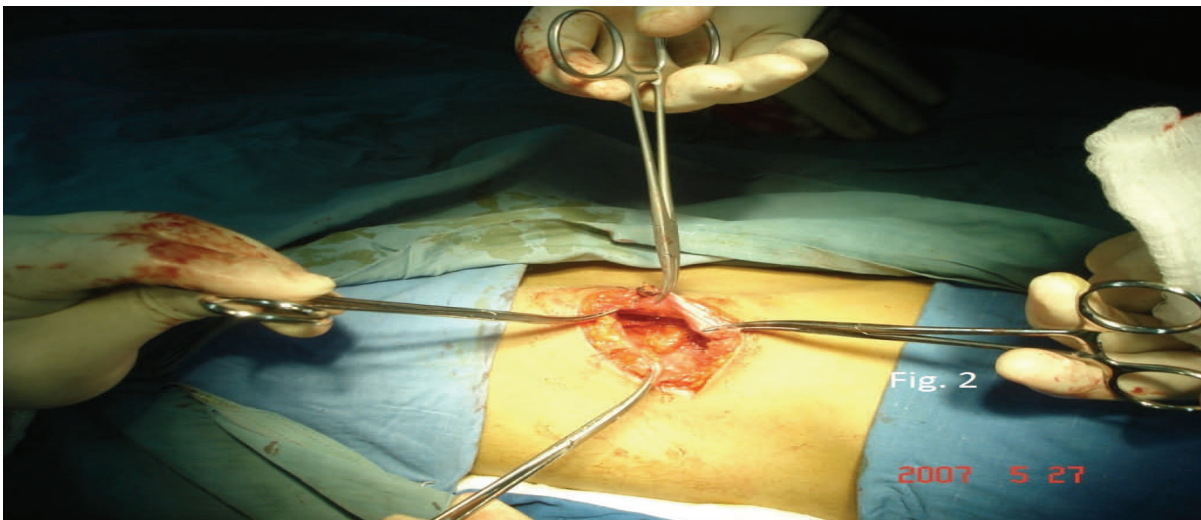


Figure2: Facial defect

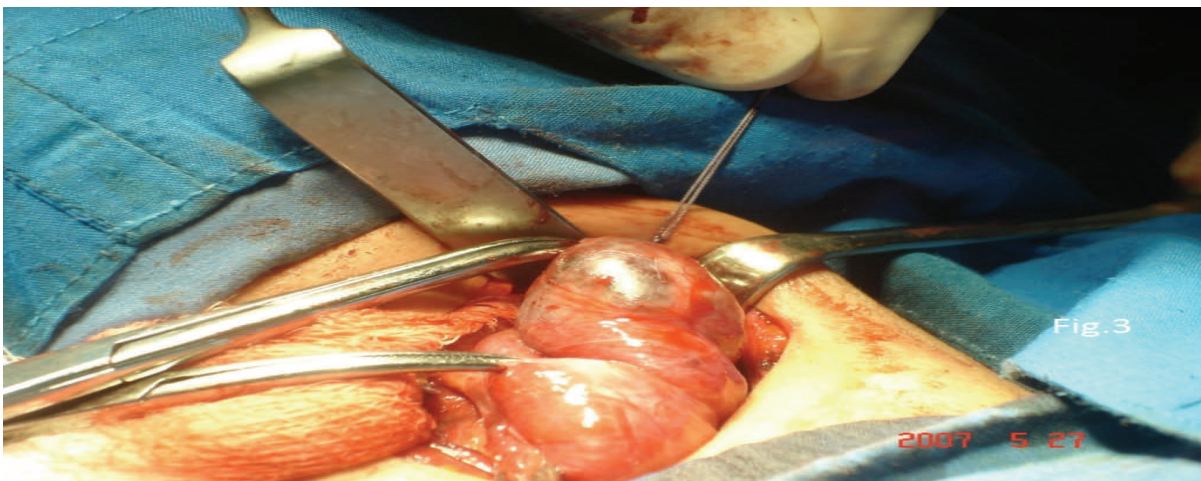


Figure 3:Hernia sac

DISCUSSION: :

Lumbar hernia are very rare and not more than 300 cases reported in literature. They can be classified as congenital and acquired. Congenital lumbar hernia are rare abdominal patient defects in infants and children. Approximately 10% of all lumbar hernia are congenital and the vast majority is unilateral. They have been divided into three categories.

1. Superior – occurring in the superior lumbar triangle (Grynfeltt and Lesshaft).
2. Interior – occurring through the interior lumbar triangle (petit) or
3. A combination of them.

The congenital lumbar hernia may be associated with lumbo-costovertebral syndrom defects^{1, 2, 3, 4} other associated abnormalities include:

Congenital sciatic hernia, absent tibia bone, posterior myelomeningocele, focal nodular hyperplasia of the liver and absent kidney. Acquired lumbar hernia (80%) may be spontaneous (55%) or follow trauma, surgery or inflammation (25%). Spontaneous herniation is usually the result of raised intra-abdominal pressure and an acquired predisposing factors such as muscle atrophy due to polio, obesity, old age or debilitating disease. The hernia contain retroperitoneal fat, kidney, colon or less commonly small bowel, omentum, stomach, ovary, spleen or appendix⁵. Common masses, which can present as lumbar swelling are abscess, hematoma, soft tissue tumors, renal tumors and paniculities. Before the era of meshplasty, Doweck repair was practised. It involved closure of defect by a pedicle flap of tensor fascia lata and gluteus maximus from below the iliac crest side to side opposition of external oblique and latissimus dorsi for Petit's triangle hernia. For superior triangle flaps from adjacent structures were developed. Presently if the defect is small and good strong tissue around, then defect can be closed with continuous or interrupted polypropylene suture. For large defect, poor muscular tissue,

preperitoneal meshplasty is the preferred treatment. Lately in the laparoscopic era, lumbar hernia are repaired laparoscopically with prosthetic mesh^{6, 7}. The objective of this correspondence was to emphasize the role and importance of the clinical examination in diagnosis of lumbar hernia. Therefore the main step in the diagnosis of a lumbar hernia is based on the clinical finding that would be supported by radiological investigation (conventional x-ray, Ultrasound, CT scan and MRI). In conclusion, in keeping with reported literatures, lumbar hernia are uncommon and they are occasionally reported. The hernia occur through the superior lumbar space of triangle of Grynfeltt and Lesshaft, which is more constant and larger, appear more often than those developed through the lower lumbar triangle of Petit. The main aspect of a lumbar hernia diagnosis is clinical followed by radiological techniques.

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