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Case Report

Congenital superior lumbar hernia in a six-month-old girl: a case report

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Abstract

Background: Congenital lumbar hernia is a rare defect of the posterior abdominal wall in children. It can occur on its own or with vertebral, rib, renal, or other abdominal-wall anomalies. So, careful clinical evaluation and appropriate imaging are needed [1, 2].

Case presentation: A six-month-old girl from Dinajpur, Bangladesh presented with a reducible swelling over the lumbar region that had been present since birth. The swelling had stayed the same size and was not associated with pain, vomiting, bowel disturbance, or any other symptom. On examination it was localized to the superior lumbar triangle (the Grynfeltt–Lesshaft triangle). An ultrasound performed during follow-up at around five months suggested that the herniated content might be the kidney. At surgery under general anaesthesia, however, only bowel was found within the sac; no kidney was present. No other congenital anomaly was detected. The defect was repaired using vicryl sutures, and the child was doing well at the one-week postoperative visit.

Conclusion: As congenital lumbar hernia is rarely reported, accurate diagnosis and regular follow-up remain important. Careful assessment of sac contents during surgery, along with screening for associated anomalies, is essential [1, 2]. Early repair has been described in paediatric series, but longer follow-up is still needed before recurrence can be judged [3].

Keywords: congenital lumbar hernia; superior lumbar triangle; Grynfeltt hernia

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Introduction

Congenital lumbar hernia is an uncommon defect of the posterolateral abdominal wall in children. Cases reported in the paediatric literature involve either the superior or the inferior lumbar triangle, and occasionally more diffuse defects; both open and laparoscopic repair have been used [1, 3, 7–10]. One paediatric series on repair of this condition stressed early operation, an individualised surgical approach, and close postoperative surveillance [5].

Associated anomalies deserve particular attention. Several reports describe lumbocostovertebral syndrome together with rib, vertebral, renal, and other multisystem abnormalities [1, 2]. At the same time, isolated congenital lumbar hernia, including bilateral disease, has also been documented [1]. What makes the present case worth reporting is the combination of a superior lumbar hernia in a female infant, an

ultrasound impression of renal herniation, and an operative finding of bowel alone.

Case presentation

A six-month-old girl from Dinajpur, Bangladesh was brought to us with a swelling in the lumbar region that had been present since birth and had not increased in size. The swelling was reducible, and her parents reported no associated symptoms — no pain, vomiting, features of obstruction, or anything else of concern.

On examination, the swelling was located over the left superior lumbar triangle, tilted slightly anteriorly, and measured roughly 7 × 6 cm. The overlying skin looked normal, a crying impulse was present, and on palpation the mass felt firm, resembling the left kidney. Apart from this, the child appeared well, with no clinical or radiological evidence of any associated spinal, rib, abdominal-wall, renal, genital, or other congenital anomaly.

The swelling had actually first been noticed in the first month of life, when both clinical examination and ultrasound identified gut as the hernia content. Surgery was deferred at that time because of the anaesthetic risk associated with early infancy in a resource-limited, remote setting. The working diagnosis was congenital superior lumbar hernia.

A repeat ultrasound was performed at around five months of age. This time, both the clinical impression and the imaging suggested that the kidney itself was herniating. The child underwent operative exploration at six months of age under general anaesthesia.

At surgery, however, only the descending colon was found within the sac; no kidney was identified, possibly because muscle relaxation under anaesthesia altered the findings compared with the awake examination. The sac was opened, redundant tissue was excised, and the defect was closed primarily without mesh. There were no intraoperative complications, and at the one-week postoperative review the child was doing well, with no sign of early complication or recurrence.



Figure 1: Baby at neonatal period



Fig 2: Baby before operation at 5 month of age

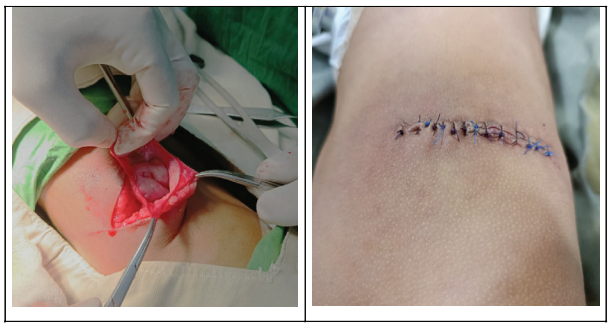


Fig 3: hernial sac opened, after closure

Discussion

Several features of this case line up with previously reported paediatric congenital lumbar hernias — a swelling present from birth, reducibility, absence of obstructive symptoms, a defect confined to a recognised lumbar triangle, and repair carried out in infancy or early childhood. In one reported 22-month-old boy, ultrasonography showed a 17 × 11 mm defect in the superior triangle containing a loop of bowel, and because the defect was small, the surgeons chose primary closure without mesh [7]. In another report, an eight-month-old boy underwent mesh repair with an uneventful recovery [8]. Taken together, these cases suggest that the choice of operative technique depends more on defect size, local anatomy, and associated abnormalities than on the child's age alone [3, 4].

The most distinctive feature of this case is that both clinical examination and ultrasound pointed toward renal herniation. Renal involvement is a recognised feature of congenital lumbar hernia and of the lumbo-costovertebral syndromes, which is why renal imaging remains clinically important in these patients [2, 8]. In our patient, though, exploration revealed only bowel, and renal herniation was not confirmed.

There is no single accepted approach to repairing congenital lumbar hernia in the literature. Small defects are often closed primarily, while larger or

anatomically complex ones may need reinforcement. One paediatric case series advocated early repair while stressing that the technique should be individualised, and a review of paediatric cases similarly described a mix of open and laparoscopic approaches [3, 4]. Laparoscopic repair has also been reported as feasible in children with lumbocostovertebral syndrome [9, 10], whereas an open approach is often preferred when the anatomy is distorted or when associated anomalies need to be assessed directly [4]. For this reason, stating the exact technique used in our patient adds to the educational value of the report.

It is also worth noting that no associated anomaly was found in this child. Many published cases involve rib, vertebral, renal, musculoskeletal, genital, or other defects [1, 2]. Given this, it would strengthen the report to document how thoroughly anomaly screening was carried out, rather than simply stating that none was present. Similarly, a one-week follow-up is enough to confirm early postoperative wellbeing but too short to say anything definitive about long-term recurrence.

Conclusion

Congenital superior lumbar hernia can present as a stable, reducible swelling from birth in an otherwise healthy infant. When ultrasound findings suggest renal herniation but the operative findings differ, the final diagnosis should rest on the complete picture — clinical examination, imaging, and operative findings together. Screening for associated congenital anomalies and careful documentation of both the defect and its repair remain important [2, 3]. In this child, the early postoperative course was uneventful, though longer follow-up will be needed to confirm that the repair holds.

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