

Congenital Lumbar Hernia

Satish Parihar, Gagan Bali, Sanjay Sharma , Neeraj Koul

Abstract

Lumbar hernia is a rare hernia. It constitutes less than one percent of all abdominal hernias. It can be congenital or acquired. Acquired can occur either spontaneously or after surgery or trauma. Only 300 cases of lumbar hernia are reported till date. We report a case of congenital lumbar hernia in one month old male baby.

Key Words

Hernia, Congenital, Lumbar

Introduction

Lumbar hernia is a protrusion of viscus between last rib and iliac crest where aponeurosis of transversus muscle is covered by latissimus dorsi muscle (1). Lumbar triangle is bounded by 12th rib above, below by iliac crest, behind by erector spinae muscle and in front by vertical line drawn from tip of 12th rib to iliac crest (2).

Only 300 cases of lumbar hernia are reported till date (3,4). Incarcerated lumbar hernia's are unusual since the neck of sac is generally broad (5, 6). Contents of hernial sac is usually small\large intestine, mesentery, omentum, appendix, caecum, stomach, ovary, spleen or kidney rarely (1). Diagnosis is usually established by clinical examination, ultrasonography (7) or C.T. scan (8). Differential diagnosis of lumbar hernia are lipoma, soft tissue tumour, fibroma, rhabdomyosarcoma, renal tumours solid or cystic.

Lumbar hernia can be congenital or acquired. Aetiologically, they can be classified spontaneous or post-traumatic and post-operative. Spontaneous is due to raised intra-abdominal pressure and acquired predisposition such as muscle atrophy due to polio, obesity or old age (9). Congenital lumbar hernia is usually associated with other congenital abnormalities of spine, ribs and viscera i.e. lumbo costovertebral syndrome (10), undescended testis (11) & bilateral renal agenesis (12).

Case Report

A one month old male baby brought by parents with history of mass in left flank since birth. There was no history of vomiting or constipation. On physical examination a 5-6cm reducible mass, nontender on palpation with positive cough or cry impulse located in posterior flank below costal margin. There was no other finding or associated abnormality on x-ray of chest or x-ray spine or on ultra sonography. Patient is being managed conservatively with regular follow-up till the age of two years as risk of strangulation in case of lumbar hernia is rare due to wide neck of sac.

Fig-1 Showing Congenital Lumbar Hernia



From the Postgraduate Department of Surgery Govt. Medical College, Jammu (J&K)-India

Correspondence to : Dr. Gagan G. Bali, 9-A, Nitco Lane, Talab Tillo, Jammu (J&K)-India 180002



Fig-2 Showing Reducible Congenital Lumbar Hernia



Discussion

Lumbar hernia is a rare hernia with only 250-300 cases in literature. It herniates through superior or inferior lumbar triangle. Herniation through inferior triangle is more common (3). Thorek (13) proposed a classification based on contents of the hernia to include the presence or absence of peritoneal sac. 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 (extraperitoneal) b) Hernia in which peritoneum is adherent to viscus or has followed the viscus through hernial ring (paraperitoneal) c) Hernia in which the peritoneum completely surrounds the contents of hernia (intra-peritoneal)

Strangulation in lumbar hernia is unlikely (4) because of large size of lumbar hernia ring and broad neck of sac. In his review of 186 cases of lumbar hernia strangulation was present in only 8% of cases, Watson (5) notes that the incidence of strangulation in spontaneous lumbar hernia is 18%. Goodman and Speese (6) noted the incidence of incarceration in spontaneous lumbar hernia is 24%. Unlike reported in literature (5,6), in our case no strangulation or incarceration was observed. Similarly as reported by few authors (11,12) ie association of congenital abnormalities, no such abnormality was observed in our case.

The treatment of lumbar hernia is by open or laparoscopic surgical technique. The goal of repair is to eliminate the defect and construct strong and elastic abdominal wall. Wide variety of material has been used to close the defect like fascia lata grafts(1), fascial rotation flaps, overlapping of aponeurosis and use of non-absorbable sutures. Hafner (13) and colleagues have reinforced large defects using marlex mesh over inferior

lumbar triangle. Treatment is usually by mesh hernioplasty either by open technique or laparoscopically (14). Laparoscopic techniques have been used for the repair of uncomplicated lumbar hernias(15).

Conclusion

Lumbar hernia may rarely result in strangulation and hence result is good. These hernias increase in size and become symptomatic. The corrective surgical procedure becomes more complex as hernial defect enlarges. Reconstruction is challenging aspect of lumbar hernia surgery. But, still in case of congenital lumbar can be managed conservatively.

References

1. Geis WP, Hodakowski GT: Lumbar hernia. In: Nyhus LM, Cohen RE (eds). Philadelphia, JB Lippincott Co, 4th Ed, 1995, .pp. 416-18
2. Sarela AL, Mavanur AA, Bhaskar A *et al.* Post-traumatic lumbar hernia. *J Postgrad Med* 1996;42:78-80.
3. Ranka SR, Bakshi G, Kamal M, Mohite JD. Lumbar Hernia. *Bombay Hosp J* 2000 ; 42: 635-37.
4. Swartz WT. Lumbar hernia. In: Nyhus LM, Condon RE (eds). *Hernia*, 2nd ed. Philadelphia: Lippincott 1978 .pp. 409-26.
5. Watson LE; Hernia. St. Louis, CV Mosby Year Book Co Inc, 3rd Ed, 1948, .pp. 443-46.
6. Goodman EH, Speese J. Lumbar Hernia. *Ann Surg* 1916; 63:548.
7. Siffing PA, Forrest TS, Frick MP. Hernias of inferior lumbar space: diagnosis with ultrasound. *Radiol* 1989;170:190.
8. Faro SH, Racette CD, Lally JF. Traumatic Lumbar Hernia. CT diagnosis. *Am J Radiol* 1987;148:565-67.
9. Ponka JL. Lumbar hernia. In: Ponka JL. *Hernia of the abdominal wall*. Philadelphia: Saunders 1980 .pp.465-77.
10. Karmani S, Ember T, Davenport R. Congenital lumbar Hernias: A case report. *J Pediatr Surg* 2002;37:921 -22.
11. CA Kcora B, Temiz A, Babayigit C. A different type of congenital lumbar hernia associated with lumbocostovertebral syndrome. *J Pediatr Surg* 2008 ;43(1); 21-23
12. Barrero CR, Garrido MM. Congenital lumbar hernia and bilateral renal agenesis. *Cir Pediatr* 2007 ; 20 (2);133-35.
13. Thorek M. *Modern Surgical Technique* Philadelphia : JB Lippincott;1950 .pp. 23-32
14. Hafner CD, Wylie JH, Brush BE. Petit's Lumbar Hernia: Repair with marlex mesh. *Arch Surg* 1963; 86:180.
15. Cavallero G, Sadghi A, Miceli M, *et al.* Primary lumbar hernia repair : the open approach. *Eur Sur Res* 2007 39 (2) : 88-92.
16. Sharma A, Panje R, Khullar R *et al.* Laparoscopic transabdominal extraperitoneal repair of lumbar hernia. *J Min Access Surg* 2005;1:70-73.