



Direct Inguinal Hernia in Pediatrics: Two case reports

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Case Report

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Abstract

Pediatric inguinal hernia occurs due to failure of closure of processus vaginalis. Aim of the procedure of indirect type in pediatrics is complete ligation of the sac. Direct and femoral hernias are extremely rare in pediatrics which could be easily detected from inside the abdomen especially during laparoscopic management. We present two rare cases of direct inguinal hernia.

Keywords: Indirect Inguinal Hernia; Direct Hernia; Pediatric

Introduction

Inguinal hernia in Pediatrics is classified as indirect type as it is the most common variant in this age group [1,2]. We had two rare cases; an infant had bilateral direct inguinal hernia and a two-year -old patient had both direct and indirect hernia at the right side.

Case report

Case 1

A one-year-old boy attended at our department as a case of bilateral inguinal hernia. He underwent open bilateral inguinal incisions which revealed bilateral direct inguinal hernia containing fat medial to inferior epigastric vessels and away from the cord Figures 1 and 2.

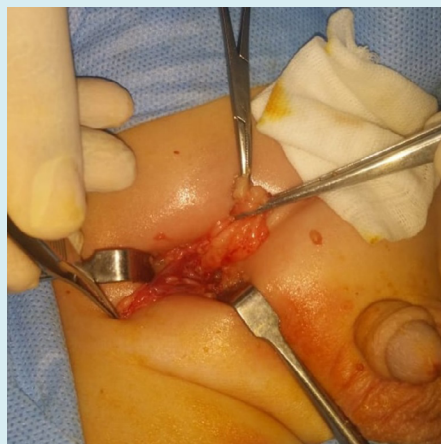


Figure 1: Case1, Right Side Direct Inguinal Hernia.

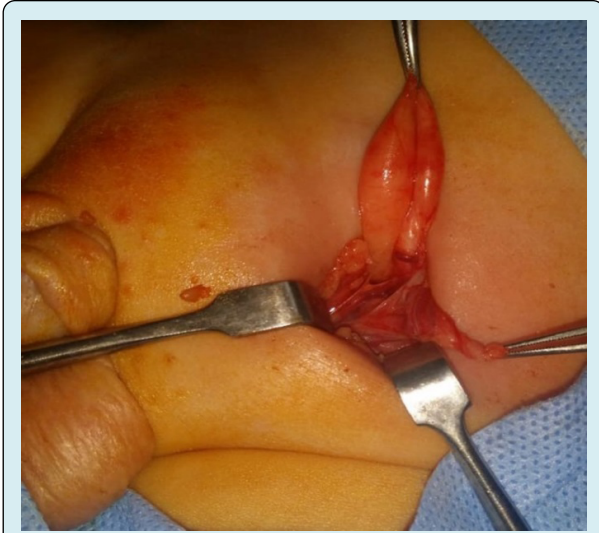


Figure 2: Case1, Left Side Direct Inguinal Hernia.

Our aim was changed into inversion of the sac inward, repairing and reinforcing the posterior inguinal wall. After inverting the sac, the transversalis fascia was plicated beside repairing both conjoint tendon and reflected part of the inguinal ligament.

Case 2

A two-year-old boy had right inguinal hernia. He underwent open right inguinal incision which showed both hernia sac within the cord contents and direct hernia in form of fatty bulge of the medial fossa of posterior inguinal wall medial to inferior epigastric vessels and away from the cord but with narrow neck Figure 3.



Figure 3: Case 2, Right Side Direct Inguinal Hernia and Sac of Indirect Type.

Consequently, herniotomy of both sacs was done followed by plication of the transversalis fascia beside repairing both conjoint tendon and reflected part of inguinal ligament. Both patients had a smooth postoperative course and follow up without recurrence.

Discussion

In Pediatrics, direct inguinal hernia is rare. Its incidence is about 0.2–1.2% of all inguinal hernias [3,4]. It commonly occurs in males, and the right side [4]. Fonkalsrud or others illustrated the causes of direct inguinal hernia: (1) attenuation of transversalis fascia, (2) increased abdominal pressure, and (3) weakness of the internal inguinal ring due to the previous surgery for indirect inguinal hernia. Wright divides the direct hernia into five based on the findings from the inguinal region [5,6]. Preoperatively, the correct diagnosis rate of indirect hernia constitutes 38%, and it is usually missed even intraoperatively [5]. The laparoscopic management is supposed to be a better intervention for proper visualization of direct inguinal and femoral hernia defects. In our cases, preoperative diagnosis is an indirect hernia; however, direct hernia was detected intraoperatively. The treatment of direct hernia is different in each facility. Some authors recommend Bassini repair [4,5] and some recommend McVay repair for femoral hernia [6]. We misunderstood our cases as an indirect inguinal hernia prior to the operation.

Most pediatric surgeons prefer the open approach. Recently, laparoscopic management technique reported in children which has the advantage of defects visualization [7,8]. We consider direct hernia repair in form of the closure of the hernia defect without tension, following the resection of lipoma with the hernia sac if possible or the inversion of the sac followed by reinforce of the posterior wall then Bassini repair if possible.

Conclusion

Pediatric inguinal swelling could be a rare type as direct or femoral hernia rather than the indirect type. These types are rarely detected preoperatively. Laparoscopy could be a possible option for better visualization and repair of these rare types.

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