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Bilateral Female Pediatric Femoral Hernia: A Rare Occurrence

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Abstract **Case Report**

Bilateral femoral hernias in a young-children are extremely rare. The incident is 0.73% of all groin hernia [1]. We present a case of 7 years old female child who presented with bilateral femoral hernia. The femoral hernia was laparoscopically repaired, by excising the bilateral hernia sac and femoral defect was closed with 3-0 PDS by suturing ilio-pubic tract to cooper's ligament. Therefore, we conclude that Bilateral paediatric femoral hernias is a rare occurrence which can be clinically diagnosed and managed by laparoscopic repaired.

Keywords: Pediatric, B/L femoral hernias, laparoscopic repair.

INTRODUCTION

A femoral hernia is the protrusion of a peritoneal sac which may contain fat, omentum or small bowel through the femoral ring into the femoral canal, posterior and inferior to the inguinal ligament.

B/L femoral hernia, are uncommon in pediatric age group, accounting for 0.73% of all groin hernia [1]. The classical presentation of a femoral hernia is a lump below and lateral to the pubic tubercle that is not occluded by digital occlusion of the internal inguinal ring [2].

Although femoral hernias are less common than inguinal hernia, they are associated with higher rate of complication such as strangulation or incarceration thus increasing the morbidity and mortality [3].

Bilateral femoral hernias in a young-children are extremely rare. We present a case of a young female who presented with bilateral femoral hernia, managed by laparoscopic repair.

CASE PRESENTATION

A 7-year-old girl presented to us for bilateral groin swellings. On physical examination, the patient had bilateral reducible inguinal swellings which were soft and nontender on palpation and impulse on coughing was present.

Laparoscopic bilateral femoral hernia repair was planned. Under general anesthesia, the patient was placed in supine position. Pneumoperitoneum was established with an open technique by introducing a 5-mm reusable trocar through infra-umbilical incision. The abdomen was insufflated to a pressure of 10mmHg. A 5 mm, 30-degree laparoscope was used for visualization throughout the procedure, peritoneal cavity was inspected, patient had bilateral patent femoral canals.

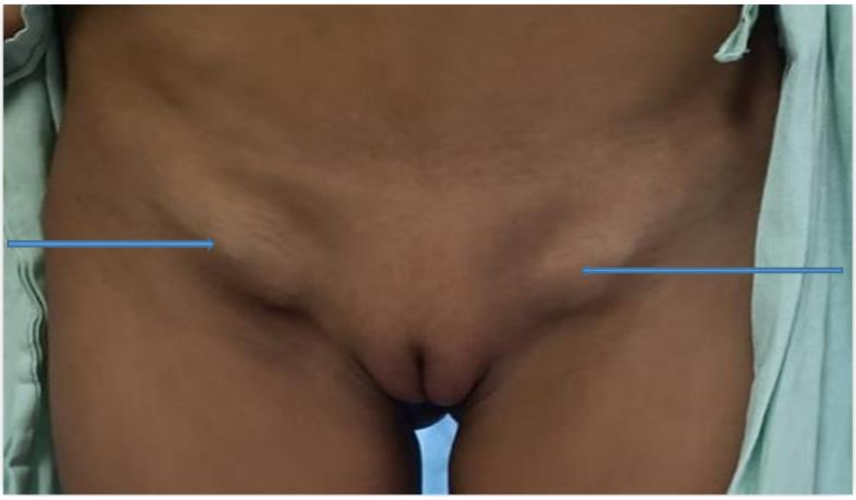

Fig 1: Clinical Presentation of Bilateral Groin Swellings (Arrow)

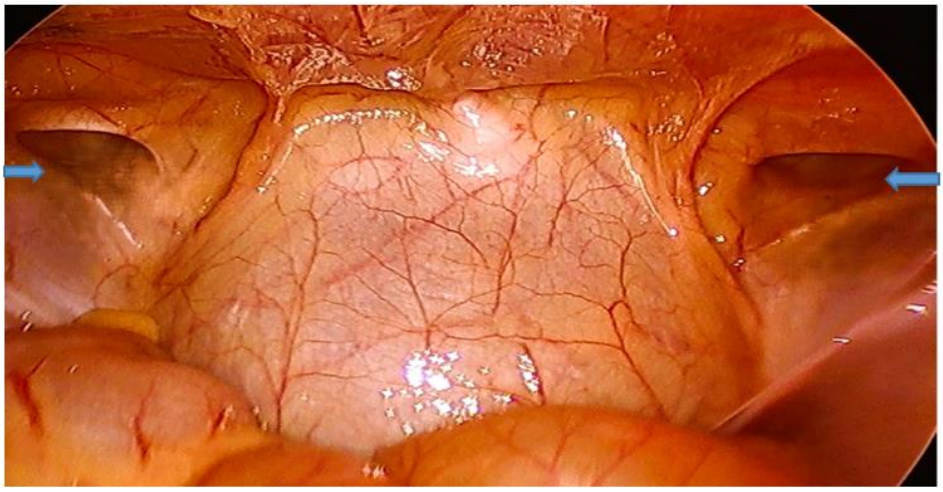

Fig 2: Bilateral Patent Femoral Canals Seen on laparoscopy (Arrow)

Two 5 mm ports were inserted lateral to the rectus muscle in mid clavicular line. Bilateral hernial sac was excised. The defect was closed with 3-0 PDS by intra-corporeal suturing of ilio-pubic tract to cooper's ligament, resulting in complete closure of femoral defect. The ports site wound was closed with absorbable subcuticular stitches. The total operative time was 45 min. The patient's postoperative course was uneventful.

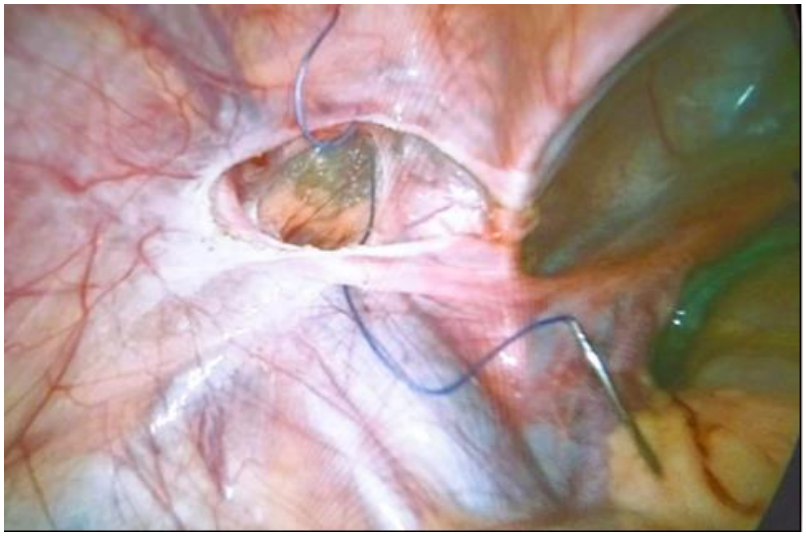

Fig 3: Suturing Ilio-Pubic Tract to Cooper's Ligament

Patient reviewed between 1 and 6 months post-Operatively, No, post-operative complications or femoral hernia recurrence was detected.

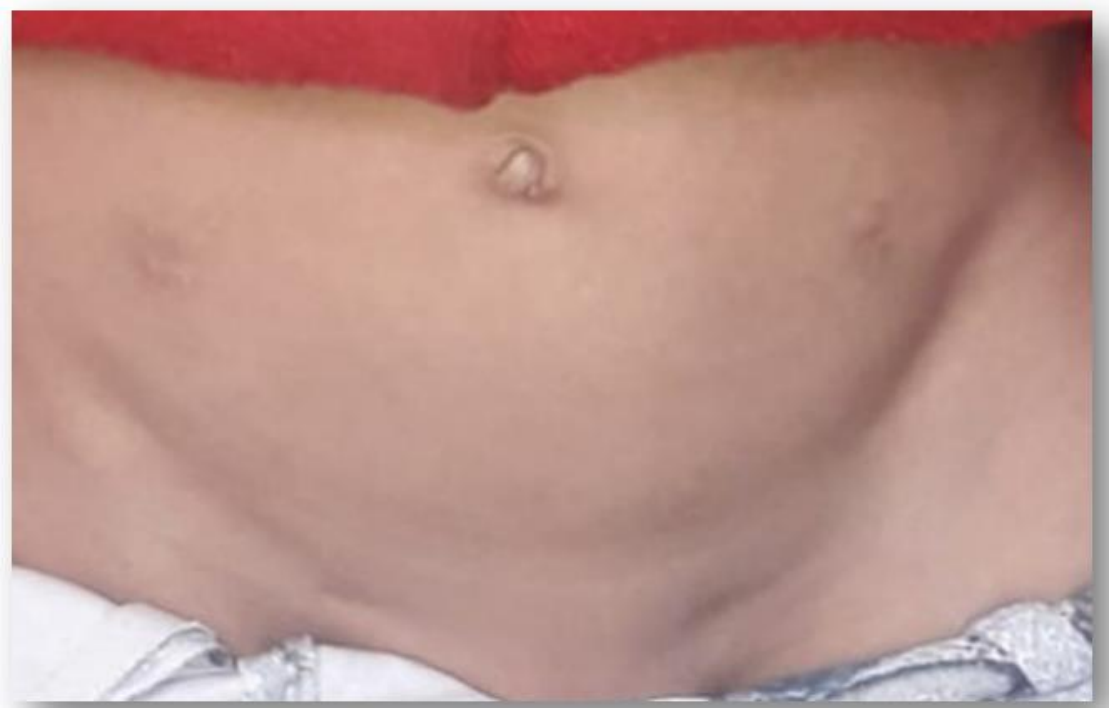

Fig 4: Post- Operative Recovery

DISCUSSION

A femoral hernia, due to the uncommon nature of this pathology in children and clinical presentation mimicking other groin pathologies, are often misdiagnosed, and hence, are sometimes treated as regular inguinal hernia [3]. Pre-operative misdiagnosis ranges from 40% to 65% [4].

There are several congenital and acquired factors causing femoral hernia identified in literature, but the aetiology remains controversial. The most popular hypothesis was described by McVay's and Savage; suggesting a congenital narrow insertion of the posterior inguinal wall to Cooper's ligament which results in enlargement of the femoral ring [5]. At present, most paediatric femoral hernias are repaired using the conventional McVay's repair, in which femoral ring closure is performed by suturing Cooper's ligament to the transversalis muscle and transversalis fascia through open anterior approach.

Adibe, reported a procedure in which the femoral sac was twisted and tied under laparoscopy, and the medial pectineal and inguinal ligaments were closed externally [6]. The use of prosthetic materials such as polypropylene mesh or Teflon plugs for paediatric femoral hernia repair has been reported [7, 8]; however, the extent to which foreign materials should be used in children is disputed [9].

Therefore, we conclude that Bilateral female paediatric femoral hernias is a rare occurrence, which can be clinically diagnosed and managed by laparoscopic closure of the femoral orifice by suturing the ilio-pubic tract to Cooper's ligament, without using prosthetic materials.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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