

Femoral Hernia in a 3 Y/o Girl; a Commonly Misdiagnosed Condition

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Abstract

In children, causes of groin lumps are mostly inguinal hernia, lymphadenitis, encysted hydrocele or femoral hernia; inguinal hernia is the most common surgical condition among these pathologies, with a peak incidence during the first 3 months of life.

Femoral hernias are rare in children. The diagnosis is based on the observation of a groin swelling located underneath the external inguinal orifice, although this location is easily missed because doctors will first interpret its appearance as the expression of an inguinal hernia.

Keywords: Femoral hernia, groin lump, herniotomy, inguinal hernia

Introduction

Femoral hernia is a rare condition in childhood. The incidence is less than 1% of all groin hernias in children and is easily misdiagnosed. Most femoral hernias are diagnosed only when inguinal exploration reveals no indirect inguinal hernia.

This report presented a 3 year-old girl with a femoral hernia.

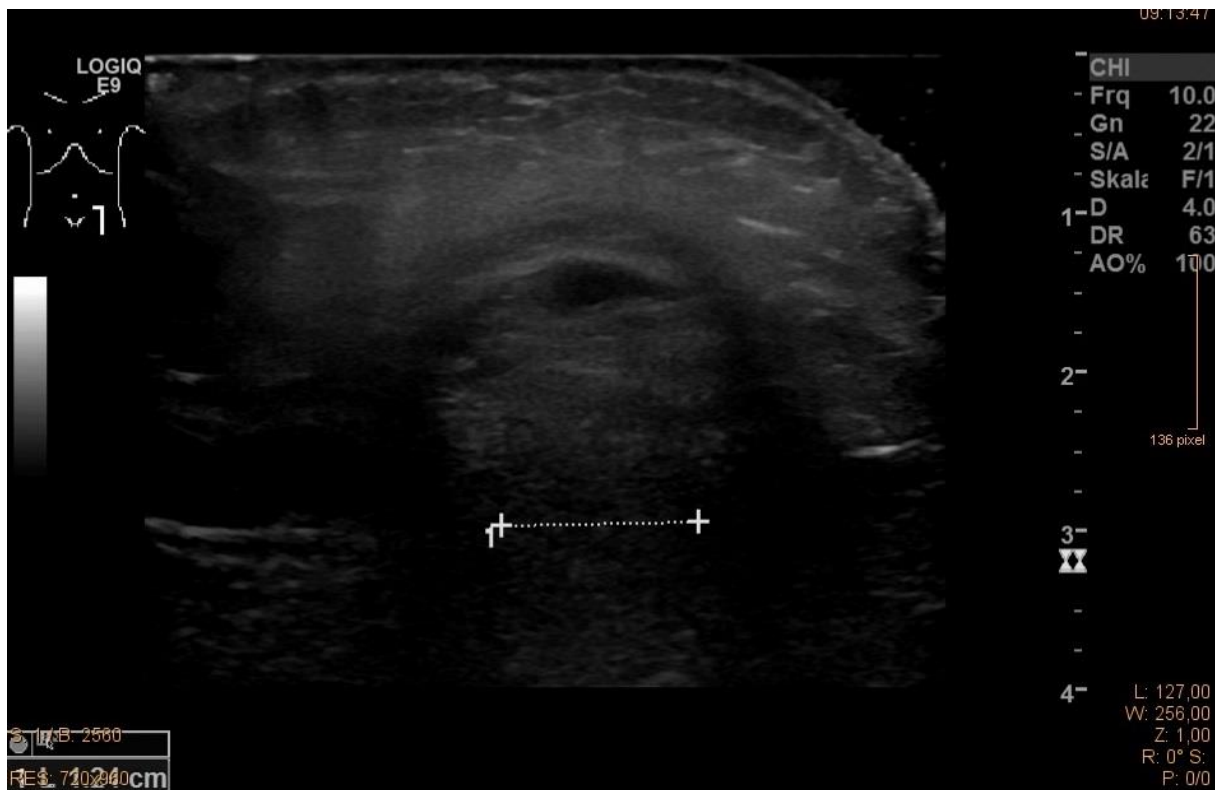
Case report

A 3 year-old girl was admitted with a left-sided groin lump. There was no previous bulging or pain in the left groin. The child had a slight fever and nasal discharge for 2 days and had noticed a painful bulging in the left groin on the same day.

Physical examination revealed a firm inguinal mass of approximately 4 x 5 cm which was irreducible. It was unusually lateral for a typical inguinal hernia and looked more like swollen lymphadenitis. There was no typical palpable hernia content and the firm mass was light red and ached.

Ultrasonography of the inguinal region showed predominantly fatty left inguinal lesions, which is the most lateral position for inguinal hernia. The mass had smaller fluid-filled spaces, with no vascularization of the lesion derivable. There was no incarcerated intestinal loop but there were adjacent cortex-widened lymph nodes (Fig.1).

Fig.1: There was no incarcerated intestinal loop but there were adjacent cortex-widened lymph nodes.



Inguinal exploration was deemed necessary. A mass of 4 × 5 cm was found infero-lateral of the inguinal ligament during surgery.

After dissection of the mass, it was clear that the problem was a femoral hernia with irreducible content in the sac.

Hernia sac opened after mobilization and there was omentum showed on the edge impaired circulation. This part of the omentum is excised after transfixation suture and healthy omentum reposed into the abdomen. Inspection of the abdomen revealed no pathological findings.

Inguinal canal reconstruction was performed using the McVay procedure.

The postoperative period was uneventful and the child was discharged on the 3rd day. The 12-month follow-up showed no recurrence.

Discussion

Groin lumps in children are mostly caused by inguinal hernias, lymphadenitis, encysted hydrocele or femoral hernias.

Inguinal hernia is one of the most common surgical conditions in infancy, with a peak incidence during the first 3 months of life. The diagnosis of inguinal hernia is made with increasing frequency in newborns.

Congenital indirect inguinal hernias develop because the process us vaginal is remains patent after birth. Although pediatric surgeons are able to make the correct diagnosis and select the most appropriate treatment for these pathologies, some rare conditions may occur in the same regions.

Femoral hernias are rare in children. In the literature, the reported occurrence is less than 1% of all groin pathologies (1,2).

The diagnosis is based on the observation of a groin swelling located underneath the external inguinal orifice, although this location is easily missed because doctors will first interpret its appearance as the expression of an inguinal hernia.

That is why the diagnosis of femoral hernia in children is a challenge. It is often misdiagnosed, with a range from 40–74% because of its rarity. This clinical presentation can mimic other pathologies such as inguinal hernia, lymphadenitis and encysted hydrocele.

The etiology of femoral hernia is still not clear; however, the consensus in the literature is that patients younger than 5 years old most probably have a congenital etiology (3).

There is no predisposition to femoral hernia in childhood. (1,3,4).

On the other hand, the McVay hypothesis pointed to a congenitally narrow insertion of the posterior inguinal wall, predisposing the patient to herniation in the event of raised intra-abdominal pressure (5).

The prevalence is equivalent in boys and girls in most studies (6,7).

In cases of doubt, ultrasonography helps with the preoperative evaluation.

At the beginning of the pathology, sonography can be of particular use to differentiate between an incarcerated femoral hernia and inguinal lymphadenitis. This is why there are some reports in the literature stating that the diagnosis has an accuracy of 100% (8).

The initial diagnosis in our patient after sonography and clinical examination was lymphadenitis. Sonography excluded an incarcerated intestinal loop, but the correct diagnosis of femoral hernia was not achieved.

Incarceration is rare in childhood femoral hernias (1,3,4,7,9).

Our patient had no irreducible omentum with impaired circulation in the hernia sac.

Regarding the surgical management of femoral hernias, there are many variations of surgical techniques, ranging from simple dissection and ligation of the hernia sac to laparoscopic repair and mesh-plug occlusion of the femoral canal (3,10).

We diagnosed the correct pathology during the first exploration. After ligation of the hernia sac, we reconstructed the inguinal canal using the McVay procedure.

For surgical repair, many sutures were used; some vicryl non-absorbable material while other authors favor vicryl or polydioxanone sutures (1,3).

Here, we preferred vicryl for the repair.

Schier reported an increased recurrence rate with absorbable material in inguinal hernia operations (8). We do not agree with this statement, as in our more than 20 years of experience we have used vicryl in all of our hernia operations without any problems.

In conclusion, femoral hernia is a rare and diagnostic challenge in children. Delayed or incorrect diagnosis can potentially cause significant morbidity.

Every groin lump should be examined carefully to make the correct diagnosis.

The diagnosis of inguinal hernia by a pediatric surgeon is not difficult; however, sonography or laparoscopy may be useful for atypical cases, especially if the bulging is unexpected laterally. In cases of doubt, we recommend surgical exploration.

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