

Obstructed right femoral hernia with fallopian tube as its content - A rare presentation

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Abstract

Femoral hernias are very rarely seen before the adult years but more common among the females. Hernia sac contents commonly contains small bowel or omentum. Other anatomical structures, such as appendix, urinary bladder, Meckel's diverticulum, ectopic testis, stomach and gynecological organs are extremely unusual. Herniation of a fallopian tube in a femoral hernia is a very rare event, due to the normal anatomical position, as it lies at a lower anatomical level than the femoral ring. Furthermore there is no embryological connection between the two structures. We present a case diagnosed as obstructed right femoral hernia with right fallopian tube as its content, a rare presentation.

Keywords

femoral hernia; fallopian tube; obstructed

Introduction

Groin hernias are classified as inguinal and femoral hernias. In femoral hernias incarceration is observed more frequently than in other abdominal hernias due to the small size of the defect in the femoral ring and the rigid ligamentous structures. Common herniating contents are mostly small intestine or greater omentum but the fallopian tube is a rare event. We present a female patient with swelling in the right inguinal region. Clinical examination revealed non reducible swelling at the right inguinal region which intraoperatively was identified as femoral hernia with right fallopian tube as its content. The patient underwent right femoral hernioplasty.

Case Report

A 42 year old female presented to the surgery outpatient department with a swelling at the right inguinal region since 3 days. The swelling was not previously noted by her. The swelling was irreducible and was associated with pain increasing in intensity since 3 days ago. She denied any altered bowel bladder

symptoms. Clinical examination revealed swelling right inguinal region measuring approximately 4cm × 3cm in size, tense, tender without impulse on cough, rebound tenderness was absent and rest of the abdomen was soft without distension. Emergency ultrasound of the whole abdomen was performed and showed obstructed right inguinal hernia with compromised vascularity suggestive of strangulation as shown in (Figure 1). Patient was taken for emergency exploration with diagnosis of strangulated right inguinal hernia

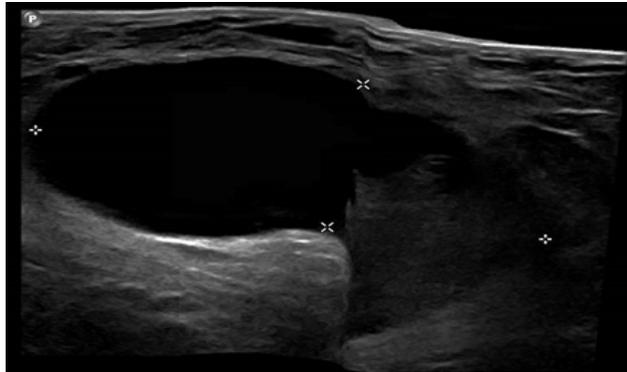


Figure 1: Ultrasound of right inguinal hernia - strangulated omentocele

with omentocele. Right inguinal incision was given. Intraoperatively, hernia was found passing posterior to the inguinal ligament, medial to femoral vein and lateral to pubic tubercle to saphenous opening then anteriorly and then cephalad over the inguinal ligament suggestive of right femoral hernia (Figure 2a & 2b). Sac was opened to find fluid and fallopian tube with infundibulum and fimbriae. After aspirating the fluid, obstruction at the femoral ring was released by cutting the inguinal ligament. Vascularity of fallopian tube appeared normal and hence fallopian tube was pushed back into the peritoneal cavity and sac was closed. Inguinal ligament was repaired. Femoral ring was closed with polypropylene mesh with interrupted stitches with pectineus fascia, inguinal ligament, lacunar ligament. Direct defect due to opening of fascia transversalis was also reinforced with polypropylene mesh. Postoperative period was uneventful.

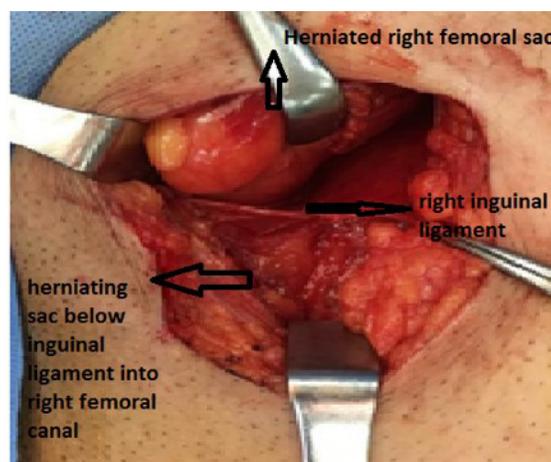


Figure 2: (a) Showing right femoral sac passing beneath femoral ring into femoral canal with hernia sac encroaching right inguinal ligament cephalad. (b) Right femoral sac showing right fallopian tube with fimbriae as its content

Discussion

Groin hernias are located anatomically in the weak myopectineal orifice. 95 per cent of the groin hernias are likely to be inguinal hernias and the rest femoral hernias [2]. Femoral hernias were reported with a 10:1 incidence ratio of women population compared to male population. Femoral hernia has higher rates of incarceration and strangulation and requires emergency surgical interventions [3]. Differential

diagnosis of such cases may include indirect inguinal hernia, enlarged lymph nodes, hydrocele of the canal of Nuck, cord lipoma, obturator hernia and psoas abscess [2,4]. Femoral hernia is considered to be formed by a congenitally narrow posterior inguinal wall attached to Cooper's ligament with enlarged femoral ring or increased intra-abdominal pressure which forces the preperitoneal fat into congenitally enlarged femoral ring [5-7]. Different herniating contents in femoral hernias have been reported such as small intestine, omentum, bladder, cecum, colon, appendix (De Garengeot's hernia), Meckel's diverticulum (Littre hernia), testis, ovary, and even stomach or kidney. Incidence of herniation of fallopian tube through femoral hernia reported to be a rare incidence due to its normal anatomical position as it lies below the femoral triangle and no embryological connection between these two structures [3]. The ovary being sensitive to ischemia can become incarcerated in a femoral hernia sac, a delay in the diagnosis may lead to its resection [8,9].

Point of care ultrasound (POCUS) serves as a valuable tool for the assessment of irreducible hernia cases initially can be performed in the emergency department. While performing POCUS most important points to be kept in mind are:

- Femoral hernia in contact with the femoral vein is visualized as a subcutaneous swelling
- Contents of hernia sac should be assessed
- Observe for signs of strangulation, such as oedematous bowel wall or absent peristalsis in cases where bowel loops are found within a hernia sac [10].

Exploration of the femoral canal and intra-abdominal access can be approached by low Lockwood; Other approaches such as Cooper's ligament repair or a pre-peritoneal approach can also be considered [10].

Conclusion

Femoral hernia may present as a swelling in the inguinal region and should always be kept in mind whenever a female patient present with such a swelling. As strangulation is the most common complication of the femoral hernias they should be suspected, diagnosed and managed on emergency basis to prevent gangrene of herniating contents.

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