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CASE REPORT

Ovarian Hernia
A rarity

*Kamran A Malik,[1] Ruqaiya M Al Shehhi,[2] Hani Al Qadhi,[1] Moza Al Kalbani,[3] Abdullah Al Harthy[1]

فتق المبيض
حالة نادرة

كمران مالك، رقية الشحي، هاني القاضي، موزه الكلباني، عبدالله الحارثي

الملخص: يُعدّ فتق المبيض من الحالات النادرة جدا، إذ تشكل 9.2% من حالات الفتق الآربي القابلة للتدخل الجراحي. نقدم هنا وصفا لحالة غير اعتيادية من هذا النوع من الفتق عند امرأة بالغة قدمت إلينا بأعراض تشابه الفتق المنحبس بالجهة اليسرى. احتوى كيس الفتق على المبيض الأيسر على كيس دموي مع بوق فالوب الأيسر والرباط العريض. خضعت الحالة لجراحه استئصال التكيس الدموي الموجود بالمبيض وإصلاح الفتق الأربي بشبكة طبية.

مفتاح الكلمات: الفتق الآربي، المبيض، تقرير حالة، عُمان.

ABSTRACT: Ovarian hernias are extremely rare. The prevalence of ovaries and fallopian tubes in operable inguinal hernias is only about 2.9%. We report here an unusual case of an ovary in a hernia sac in an adult female. She presented with symptoms and signs of an incarcerated left inguinal hernia. The left ovary contained a haemorrhagic cyst and, along with the left fallopian tube and broad ligament, these were found in the sac. She underwent a left ovarian cystectomy and the inguinal hernia was repaired with mesh.

Keywords: Inguinal hernia; Ovary; Case report; Oman.

A hernia is defined as a protrusion of the small intestines or omentum through a defect in the abdominal wall**.** Hernias present as bulges in the groin area that can become more prominent when coughing, straining, or standing up. Although inguinal hernias are more common in males, they still can occur in females, most commonly in tandem with herniation of the omentum or small bowel. It is rare to find unusual contents in the hernia sac. A retrograde analysis of 1,950 cases of operable inguinal herniae showed that the vermiform appendix was present in 0.51% of the cases, ovaries and fallopian tubes in 2.9%, and urinary bladder in 0.36%.[1] We report here on unusual contents within a hernia sac in an adult female who presented with symptoms and signs of an incarcerated left inguinal hernia. The left ovary, containing a haemorrhagic cyst along with the left fallopian tube and broad ligament, were found in the sac. After adequate resuscitation, the patient underwent an ovarian cystectomy and her hernia was repaired with mesh.

Case Report

A married 31-year-old woman with two children who was known to have sickle cell disease, presented to the Accident and Emergency Department of Sultan Qaboos University Hospital, Oman, with a 5-day history of left-sided inguinal swelling associated with colicky abdominal pain and loss of appetite. She denied any history of constipation, nausea or vomiting. She was also known to have bronchial asthma, which was controlled with inhalers. Clinically, she was in distress with haemodynamically normal vital signs. Local examination revealed a 7 x 5 cm non-pulsatile, smooth-surfaced, warm, tender, irreducible swelling with a positive cough impulse. The rest of the systemic examination was within normal limits. Her routine blood workups were normal except for a leucocytosis of 13 x 10^9/L. A diagnosis of strangulated inguinal hernia was made and she was taken for emergency surgery after adequate resuscitation with intravenous fluids and

Departments of [1]Surgery, and [3]Obstetrics & Gynaecology, Sultan Qaboos University Hospital, Muscat, Oman; [2]College of Medicine & Health Sciences, Sultan Qaboos University, Muscat, Oman
**Corresponding Author e-mail: surgeonkamran@yahoo.com*

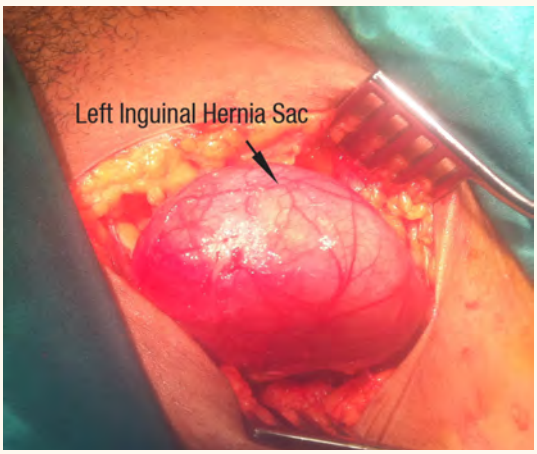

Figure 1: Left indirect hernia .

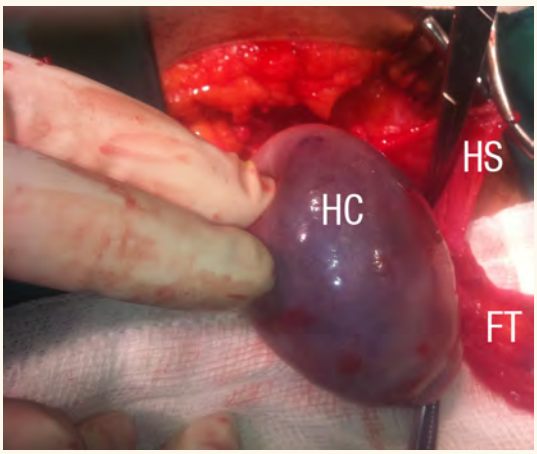

Figure 2: HC: left ovarian hemorrhagic cyst; HS: hernia sac; FT: left fallopian tube.

antibiotics.

On exploration of the left inguinal canal, a thin sac containing a partially torted left ovarian cyst with a viable ovary and fallopian tube was found [Figures 1 and 2]. She underwent a left ovarian cystectomy and the inguinal hernia was repaired with Ethicon UltraPro mesh, (size 15 x 15 cm, Johnson & Johnson Medical Ltd., Ascot, UK). A histopathology study confirmed the finding of a haemorrhagic corpus luteum cyst. The patient had an uneventful recovery and was discharged home in a stable condition, with no recurrence seen on her recent follow-up appointment in the surgical clinic 6 months after surgery

Discussion

The inguinal canal in the female is not well-demarcated as compared to the inguinal canal in males. Normally, different structures pass through it including the round ligament of the uterus, a vein, an artery from the uterus that forms a cruciate anastomosis with the labial arteries, and extra peritoneal fat.[2]

It is reported in literature that ovarian hernias are extremely rare in premenopausal women. On the contrary, most cases of gonadal hernias were reported in the paediatric age group in association with other genital tract anomalies.[3] T. Okada *et al.* suggested a few hypotheses as to the mechanism by which this may occur.[4] One of these hypotheses speculates that weakness of the broad ligaments or ovarian suspensory ligaments can contribute to ovarian herniation into the inguinal ring. This can be augmented by high intra-abdominal pressure as a result of carrying heavy things, or due to a chronic cough secondary to respiratory disease**,** as could be the case with our patient.

Although considered extremely rare, there have been case reports of different unusual contents found in inguinal hernia sacs, including parts of the genitourinary tract. McMillan reported a case of a rudimentary uterus in a 30-year-old female which had presented as a right groin lump for eight years**.**[5]

Despite the efforts made to diagnose the contents of inguinal hernias prior to surgery, most of them are made intraoperatively, as in our patient. Yao *et al.* suggested that in premenopausal women the morphological characteristics of the ovary in the hernia sac can be assessed through sonographic examinations, which provide information on ovarian function that cannot be obtained in younger females. These characteristics include eliciting a mass with multiple small sonolucent cysts indicating the ovary. A hyperechoic portion of the mass surrounded by an arterial flow can be observed on colour Doppler ultrasonography consistent with the presence of a corpus luteum. Furthermore, transabdominal sonographic scans of the pelvis may reveal the absence of one ovary in the lower pelvis on the same side as the inguinal hernia.[6]

Although ovarian cysts are not commonly encountered by surgeons, a high index of suspicion is required in order to avoid any delay in diagnosis and treatment. It was reported that about 4–37% of female inguinal hernias, which have been found intraoperatively, present with non-reducible

ovaries. Ovarian torsion and infarction have been encountered in 2–33% of these patients, which necessitates treating all cases, even when asymptomatic.[7]

Ovarian cysts can be dealt with effectively with the help of laparoscopy, particularly if the cyst is benign, with concomitant repair of inguinal hernia if the diagnosis is made preoperatively.[8] This was not applicable in our patient as our preoperative diagnosis was a strangulated inguinal hernia.

Conclusion

In most cases, the contents of the hernia sac can be detected intraoperatively. Although considered to be a very rare entity, the possibility of ovarian hernia should be kept in mind in a female patient presenting with an irreducible swelling in the inguinal or femoral region in order to avoid serious complications. Whenever suspected, it must be treated as a surgical emergency.

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