Thamar University Journal of Natural & Applied Sciences ISSN: 2073-0764
2017 A(**7**)139-143 © 2017 Thamar University

TUJNAS

CASE REPORT

Rare Infantile Inguinal Hernia Containing Uterus, Fallopian Tubes and Ovaries

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ABSTRACT

The presence of ovaries and fallopian tubes in the sac of female inguinal hernia is rare especially in childhood. However; complete herniation of the uterus side by side with ovaries and tubes constitutes extreme rarity. We herein present a 6-years old female patient whose inguinal hernia contains uterus in addition to ovaries and fallopian tubes. The aim of this report is to attract attention of the surgeons to this rare possibility during surgical management of hernia in order to avoid the likely damage to herniated structures.
Keywords: Female Infants, Inguinal Hernia, Uterus, Ovaries.

INTRODUCTION

An inguinal hernia in females is relatively uncommon as compared to males. The incidence in females is about 1.9%, the ratio of boys to girls is 6:1[1]. Regarding the content of the hernia sac, about 15-20% inguinal hernias in infant girls contain ovary and Fallopian tube, however, the presence of uterus within a hernia sac side by side with the ovaries and fallopian tubes is an extremely rare [2] .There is nothing known about risk factors for such conditions in the literature, however a positive family history and obstination are the independent risk factors [3] .

Since only few such cases are reported in the literature about uterus herniation, we hereby report a case of child female patient with left inguinal hernia that contains the uterus beside ovaries and fallopian tubes.

A CASE REPORT

A 6 years old female infant presented to surgical clinic in Saudi hospital at Hajjah governorate in Yemen in 2013. The chief complaint was a painless swelling in left groin region since birth. The swelling increases in size with crying, straining or longstanding and disappears spontaneously in lying down or sometimes by gentle compression by the hands. No history of pain, vomiting, abdominal distention or vaginal bleeding. The patient was born normal delivery and full term. By examination in standing position, about 4x4 cm mass is found in left inguinal region. The size of swelling markedly decreased in supine position but remained partially irreducible, so we had to apply gentle compression to reduce the content of the sac back to peritoneal cavity. The swelling was soft, tenderless and the reduction was almost complete and smooth. The cough expansile impulse was positive. The finding over the abdomen was normal, so the provisional diagnosis was made as sliding inguinal hernia with bowel content. Unfortunately, we regarded ultrasound investigation of the swelling as optional and was not done. The other routine preoperative investigations were normal. The case was operated as an elective. Intraoperative finding was surprising when the sac was opened. All uterus, tubes and ovaries were freely situated within the hernia sac (Fig.1, 2). They were slightly fixed with fine adhesions to the inner surface of the sac with no signs of damage. The sliding structures were freed up from adhesions and easily reduced back to peritoneal cavity. The sac was highly dissected, transfixed as usual way. The patient was discharged on the 3rd postoperative day in good general condition and had uneventful recovery.

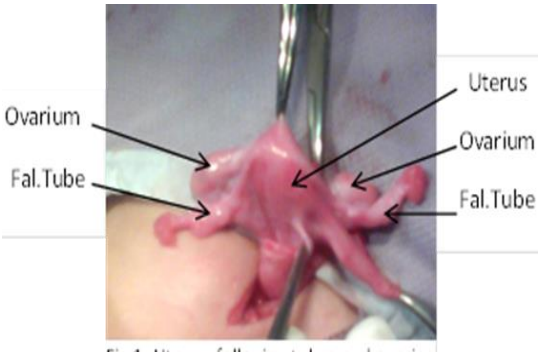

Fig 1: Uterus, fallopian tubes and ovaries found in sac of left inguinal hernia.

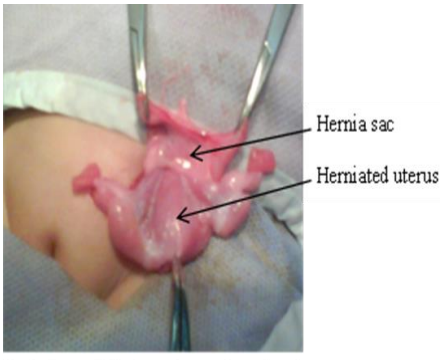

Fig 2: Uterus, fallopian tubes and ovaries found in sac of left inguinal hernia

DISCUSSION

It is known that the inguinal hernia in female is rare compare to males. The incidence of inguinal hernia in females is about 1.9%, the ratio of boys to girls is 6:1 [1]. About 15-20% inguinal hernias in infant girls contain ovary and fallopian tube [2] , however the presence of uterus within the hernia sac is extremely rare condition in infants [2,4].The presentation

of an asymptomatic palpable movable mass over the labium major always suggests sliding hernia with ovary. Few reports have appeared in the literature about inguinal hernia that its sac contains fallopian tube and ovary in female patient [5]. However; uterus herniation remains extremely rare[4]. Many of inguinal hernias in female are in fact sliding and containing genital structures such as ovaries, fallopian tubes or even the uterus [3]. The hernia sac is usually formed by the unobliterated portion of the prenatal peritoneal invagination[6]. Depending on the gender, the processus vaginalis is accompanied by testis or round ligament of the uterus and passes through the inguinal canal toward scrotum or labium major. The processus vaginalis usually obliterates and disapears by 8 months of gestation[7]. Failure of obliteration of processus vaginalis in female keeps this processus patent and termed as canal of Nuck, which is the cause of hernia in females [8].

However; the etiology of this pathology is still controversial and no clear explanation why the uterus should herniate in girls, unless there is an anatomical abnormality of the ligaments that suspend the uterus [4,5]. Thomson [9] offered the hypothesis: the failure of fusion of the Mullerian ducts leads to excessive mobility of the ovaries. A nonfusion of the uterine cornuae makes herniation of ovary into the inguinal canal increased. The report added that not only the ovarian herniation can occur but also the entire herniation of uterus and fallopian tubes into inguinal canal in infant females [9]. In this case, the herniation is not only of ovaries and fallopian tubes, but the uterus was freely found in hernia sac side by side with ovaries and tubes.

Because of the risk of damaging herniated structures during the surgical procedure, a careful family and past history should be taken as well as performing preoperative investigations. Vaginal bleeding in a child with inguinal hernia may occur when the uterus is the sliding component of the hernia [10]. Therefore, Ming Y C et all [5] advises performing routinely preoperative ultrasound for all female infants with an irreducible palpable inguinal mass [5]. In our case, neither past history nor family history were relevant. Unfortuately, preoperative ultrasound in our case had not performed since the diagnosis of inguinal hernia was clear. In fact, it was first time in our experience to have such hernia containing internal genital structures. We therefore agree with other reports that recommend preoperative ultrasound for any sliding and irreducible hernia. This is because of likely presence of female internal genital structures and potential damage to the prolapsed structures.

In conclusion, the presence of female genital structures such as ovaries and tubes in sliding or irreducible inguinal hernia is rare, but the presence of uterus in hernia sac together with the ovaries and fallopian tubes is still extremely rare. This possibility should be kept in mind of surgeons during physical examination and surgical management of sliding or irreducible inguinal hernia in female. Therefore, preoperative ultrasound is recommended for all female with irreducible inguinal hernias to have clear idea about the content of the sac, especially when the patient is female infant. Once the diagnosis is conformed, an immediate surgery is required to avoid the unexpected complications.

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حالة فتاق اربي نادرة
تحتوي على الرحم و قنوات فالوب و المبايض عند طفلة

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ملخص

يعتبر وجود المبايض الى جانب قنوات فالوب في كيس الفتاق الإربي عند النساء نادرا بالذات عند الأطفال. لكن تواجد الرحم جنبا الى جنب مع المبايض وقنوات فالوب في كيس الفتاق يعتبر نادرا جدا. نقدم بهذا التقرير حالة لطفلة عمرها 6 سنوات تعاني من فتاق اربي يحتوي على الرحم الى جانب المبايض وقنوات فالوب. إن الهدف من هذا التقرير هو لفت نظر الجراحين الى امكانية وجود هكذا حالة اثناء اجراء التدخل الجراحي وذلك لتفادي الضرر للأنسجة التي بداخل كيس الفتاق.

الكلمات المفتاحية: الطفلات، فتاق إربي، الرحم، المبايض