

A Rare Case of Inguinal Utero-Ovarian Hernia in Girls

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Case Study

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ABSTRACT

Inguinal hernias are more common in boys than in girls. If inguinal hernia containing an ovary (ovarian hernia) is a relatively common clinical form of inguinal hernia in the little girl, the one containing an ovary, a fallopian, and the uterus is very rare. We report the case of a 40 day old girl with a left inguinal tumefaction. The ultrasonography showed that the hernia contain an ovary. During surgery, we discovered a hernia sac containing an ovary, the fallopian tube and uterus.

INTRODUCTION

Indirect inguinal hernia is the most frequent hernia of childhood. Boys are more frequently affected than girls (85% versus 15%). In female infant, it results from the persistence of the canal of Nuck. During the first months of life, sliding inguinal hernias mostly contain the ovary. The presence of the ovary, fallopian tube and the uterus within the hernia sac is a very rare condition in infants. Only one case is reported in the literature. We report the observation of a premature girl who presented an inguinal hernia containing the ovary, a fallopian tube and the uterus.

CASE DESCRIPTION

A 1 month-old female infant was presented to the emergency because of an irreducible mass in the left inguinal region, noticed by her mother a few hours ago. On physical examination, the patient had a palpable mass in the left inguinal region that appeared larger while she is crying. The attempts to reduce the mass failed. The ultrasonography showed a homogeneous structure in the hernia, an incarcerated hernia containing an ovary was suspected preoperatively. Surgery was performed through an inguinal approach; the uterus, fallopian tube and ovary were found in the hernia sac (**Figure 1**).



Figure 1. Utero-ovarian content of the hernia sac: 1 ovary;-2 Fallopian tube; 3 uterus.

The organs were freed from the hernia sac by a careful dissection due to strong adhesions between the organs and the hernia sac (**Figure 2**).



Figure 2. Adhesions between the hernia sac and the uterus.

The organs appeared normal. A high ligation was performed. The postoperative course was uneventful.

DISCUSSION

Processes vaginalis develops at around the sixth month of fetal growth as an evagination of parietal peritoneum. In female infants, it accompanies the round ligament of the uterus and passes through the inguinal canal up to the labium major. Processes vaginalis obliterates around eight months of gestation. If patency persists, it is termed the canal of Nuck ^[1].

Hernia of the canal of Nuck is a rare condition with an incidence ranging from 0.5% to 1.5% ^[2]. The hernia sac in female infant commonly contain ovary that is why it is known as ovarian hernia. Inguinal hernia containing an ovary with or without a fallopian tube is common. However, an inguinal hernia containing the uterus is extremely rare. Fewer than 10 cases were reported in literature ^[1,3].

The etiology of this pathology is controversial. An anatomic abnormality with primary weakness of the uterine and ovarian suspensory ligament is suspected. Thompson ^[4] have offered the hypothesis that the chance of herniation of the uterus, ovary and fallopian tube into the inguinal canal is increased if there is a failure of fusion of the Mullerian ducts which can lead to an excessive mobility of the ovary and the uterus. On the other hand, Fowler ^[5] has assumed that the elongated ovarian suspensory ligaments were the first cause of this hernia.

The diagnosis of the hernia in female infants is clinic with insufficiency of physical examination to predict the contents of the hernia sac. Ultrasonography should be routinely performed in this case ^[6,7]. It is an available choice for diagnosis. In our case, an ultrasonography was done but it has not shown the contents of the hernia sac.

The surgical procedure for inguinal hernia containing uterus is quite different from the cases containing only the ovary, as these organs are strongly attached to the hernia sac and it is difficult to free them from the wall of the hernia sac. After freeing these attachments without damaging the organs, we recommend a high ligation and an additional repair of the internal inguinal ring to prevent recurrence. Some authors also recommend contralateral exploration to prevent the infant from another operation ^[2,7].

CONCLUSION

In conclusion, this case of utero-ovarian hernia is very rare. When an atypical inguinal hernia is diagnosed in a female infant, we advise prompt ultrasonography in all cases. Early surgical intervention is necessary to prevent the damage of herniated organs.

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