



Infantile Inguinal Hernia Containing Ovary with Fallopian Tube - A Rare Case Report

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Citation this Article: Dr Ravitej Singh Bal, Dr Karanbir Singh, Dr Navdeep Saini, Dr Aakriti Sharma, “Infantile Inguinal Hernia Containing Ovary with Fallopian Tube - A Rare Case Report”, IJMSIR - July - 2024, Vol – 9, Issue - 4, P. No. 221 – 223.

Type of Publication: Case Report

Conflicts of Interest: Nil

Introduction

Infants and children can be affected by a variety of congenital abnormalities. With an incidence of 0.8–4%, an indirect inguinal hernia is a common congenital abnormality that can affect an infant during their first year of life [1-3]. An inguinal hernia is caused by partial closure of the inguinal canal, resulting in a hernia sac containing fluid content or intestinal components. They rarely (15–20% of cases) contain the reproductive organs, either with or without the fallopian tubes: the uterus and ovaries [2,4,5]. Surgical intervention (correction, reduction, and ligation) is almost always the treatment of choice in children [6]. The purpose of this report is to describe a rare instance of a 4-month-old female infant who had a left inguinal hernia containing an ovary and a fallopian tube. It also aims to demonstrate the importance of a thorough history and clinical examination, and ultrasonography in the early detection and prompt treatment of such congenital abnormalities.

Keywords: Congenital abnormalities, Fallopian tubes, inflammatory process, Scrotal hernia.

Case report

A 4 months-old female baby with a symptomatic left inguinal swelling was referred to the surgery department. There was no history of any abnormal conditions related to the vaginal delivery, and there was no history of irritability, redness, pain, vomiting, or signs of an inflammatory process. The mother complained about the persistent swelling in left groin of the baby which would increase in size during crying. A careful clinical examination revealed an irreducible, soft, non-tender lump in left the groin with no sign of any inflammation or collection.

Ultrasound was used to exclude any abnormal contents, such as the uterus and ovaries. The ultrasound showed a left inguinal hernia containing an ovary with fallopian tube, which were seen to cross the neck of the hernia. The hernia neck measured approximately 7 mm. The hernia was not reducible and contained minimal fluid. The vascularity was evaluated and showed normal organ perfusion. All routine investigations were done and patient was posted for surgery.

The patient underwent careful dissection with careful consideration of the possibility of adhesions of the organs within the hernial sac. The ovary and fallopian tube were freed from the adhesions carefully (Figure 1). Organ reduction followed by ligation of the sac at deep inguinal ring was done. The surgery was successful, and the postoperative course was uneventful. Clinical and radiological follow-up was recommended for one year after the operation.

Discussion

An inguinal hernia is a very common congenital abnormality in infants. A few case reports discussing this abnormality have been reviewed in the literature. Ovarian and fallopian tube hernias are extremely uncommon [7, 8]. Ballas et al. [9] have reported cases of unusual hernial contents, including the vermiform appendix, acute appendicitis (Amyand's hernia), or epiploic appendagitis related to a groin hernia with a massive intrascrotal lipoma (extra testicular), initially misdiagnosed as a scrotal hernia.

The processus vaginalis begins to develop as an invasion of the parietal peritoneum at six months of foetal development. Depending on the gender, it travels through the inguinal canal to the labia majora, or scrotum, where it is joined by a round ligament or testis. It is referred to as the canal of Nuck if patency continues [10]. A hernia results from an embryological anomaly when there is a failure of partial or complete obliteration of the processus vaginalis in a female [11].

In order to rule out cystic or solid hernia components and to check for incarceration and strangulation, a prompt diagnosis is crucial. The preferred method for characterizing and assessing inguinal hernias in pediatric patients is ultrasound. Nonetheless, adult patients are diagnosed using magnetic resonance imaging [12]. The ovaries are solid oval organs that have several tiny cysts

that represent follicles and a distinctive homogeneous echogenicity [11].

Ultrasound is superior to differentiate inguinal hernias from other conditions, including hydrocele, lymphadenopathy, Bartholin gland cyst, infection/abscess, inguinal gonad, and endometriosis, as well as benign and malignant neoplasms [10].

Surgical intervention is the best management option for hernia repair and treatment in children [10], and it is used for the treatment of symptomatic patients to avoid complications, such as intestinal obstruction and herniated organ ischemia.

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Legend Figure

Figure 1: Left inguinal hernia showing ovary and fallopian tube as content

