

Case Report

A RARE CASE OF AN UNUSUAL CONTENT IN INGUINAL HERNIAL SAC- OVARY

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ABSTRACT

Albeit very uncommon, the hernia sac may contain unusual structures such as vermiform appendix, acute appendicitis, ovary, fallopian tube and, urinary bladder. Most of the cases of hernia containing ovary and fallopian tubes were reported to be found in children and, often accompanied with other congenital anomalies of genital tract. The incidence of ovary and fallopian tube in the inguinal hernia sac is 2.9% in one series whereas a literature search revealed only twelve case reports in adults. We report a case of left ovary and fallopian tube with a left ovarian cyst in the left sided inguinal hernia sac in a 35-year old female who came to surgical ward with a pain in the left groin for 3 months associated with swelling in the left groin for six months duration. On examination a single spherical shaped swelling of about 3x2 cms in size on the left inguinal region. The swelling was soft in consistency and non tender with a expansile cough impulse. The skin over the swelling was not warm and no discoloration with normal bowel sounds. We took up for elective inguinal hernia repair whereby the sac revealed the above content. So we did the mesh repair and excision of hemorrhagic cyst. The patient was discharged from the ward with a uneventful post operative period and on regular follow up. It is being presented for its rarity.

Keywords: *Hernia, Ovary, Mesh, Inguinal Region, Fallopian Tube*

INTRODUCTION

Albeit very uncommon, the hernia sac may contain unusual structures such as vermiform appendix, acute appendicitis, ovary, fallopian tube and, urinary bladder. Most of the cases of hernia containing ovary and fallopian tubes were reported to be found in children and, often accompanied with other congenital anomalies of genital tract. The incidence of ovary and fallopian tube in the inguinal hernia sac is 2.9% in one series whereas a literature search revealed only twelve case reports in adults. It can occur if the gubernaculum fails to attach to the uterus or if the canal of Nuck remains open during fetal life.

CASES

A 35-year old female came to surgical outpatient clinic with a pain in the left groin for 3 months duration with a swelling in the left groin of six months duration. The patient had the swelling in the left groin of six months duration which was started as a small one gradually increased over a period of six months. She has pain in the left groin of three months duration. She has not yet married and decided not to marry in the future too because her family issues. No history of difficulty in passing urine or stools. The patient passed flatus and stools in the concerned day. Her menstrual cycle was regular with a flow duration of three per thirty days. On local examination a single spherical shaped swelling of about 3x2 cms sized on the left inguinal region. The swelling was soft in consistency and non tender with the expansile cough impulse. Right sided inguinal region and external genitalia were normal.

The skin over the swelling was not warm and no discoloration. The bowel sounds were normal. All the basic blood investigations were normal. The ultrasonography revealed left sided inguinal hernia with normal abdominal study. So we took up for elective surgery under regional anaesthesia with a left inguinal incision, skin, subcutaneous layers incised. Left inguinal canal opened and separated the sac from left sided round ligament. The sac was opened and the ovary with a hemorrhagic cyst and fallopian tube were the content (Figure 1.1). The cyst was excised in toto and the left ovary and fallopian tube were reduced inside followed by posterior wall of inguinal canal repaired with 6x11 cms prolene mesh (Figure 1.2).

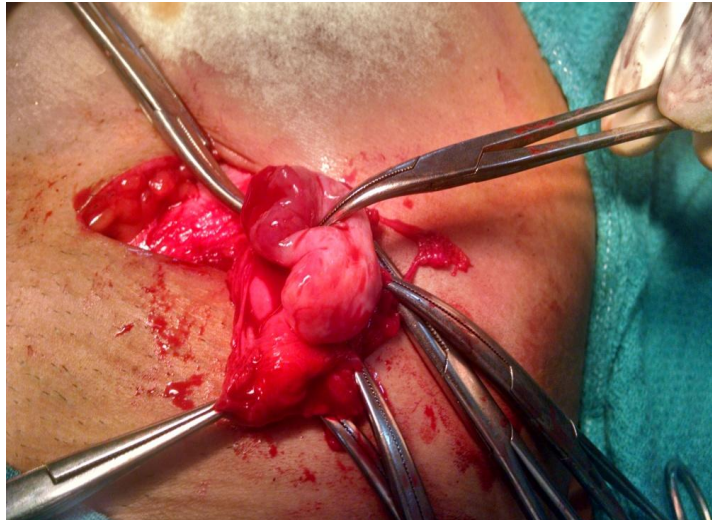


Figure 1.1: Shows the left ovary and fallopian tube with hemorrhagic ovarian cyst in the hernia sac



Figure 1.2: Shows intraoperative image of 6x11cms sized prolene mesh repair left inguinal canal



Figure 1.3: Shows the postoperative wound status

Case Report

After perfect hemostasis wound was closed in layers. Post operative period was uneventful and the patient discharged on fifth post operative day and on regular follow up.

DISCUSSION

The inguinal canal in the female normally gives passage to the round ligament of the uterus, a vein, an artery from the uterus that forms a cruciate anastomosis (Gurer *et al.*, 2006) with the labial arteries, and extraperitoneal fat (Ozkan *et al.*, 2009). The fetal ovary, like the testis, is an abdominal organ and possesses a gubernaculum that extends from its lower pole downward and forward to a point corresponding to the abdominal inguinal ring, through which it continues into the labia majora. Instead of descending, as does the testis, the ovary moves medially, where it becomes adjacent to the uterus (Ozkan *et al.*, 2009).

The development of indirect inguinal hernias is simply explained by prolapse of any intraabdominal organ through the inguinal ring together with round ligament. Swelling of the inguinal region in a female may result from a number of conditions, including inguinal hernia, tumor (lipoma, leiomyoma, sarcoma), cyst, abscess, lymphocele, lymphadenopathy, or a hydrocele (Anderson *et al.*, 1995). Albeit very uncommon, a hydrocele of the canal of Nuck has to be included in the differential diagnosis of a groin lump in female patients. Hydrocele is located in the canal of Nuck which is the portion of the processus vaginalis within the inguinal canal in women. Indeed a hydrocele of the canal of Nuck is equivalent to an encysted hydrocele of the cord in men. If the processus vaginalis does not close, it is referred to as a patent processus vaginalis.

Its size will allow fluid or abdominal organs to pass so that the condition will lead to hydrocele or hernia respectively. The literature reveals very little about hydrocele in the adult female patient. Several pediatric cases have been reported in the literature and Wei *et al.*, reported one case in an adult woman as in our case (Wei *et al.*, 2002). Hydrocele typically presents as a painless, translucent swelling in the inguinolabial region and there is no nausea or vomiting that is similar to this case report. It is also important to know that a hydrocele can also occur with local inflammation of the sac and cause nausea, vomiting, pain and even leukocytosis, making diagnosis more difficult (Wei *et al.*, 2002). The treatment of the hydrocele of the canal of Nuck is complete surgical resection. As there is a high association of inguinal hernias, dissection to the internal inguinal ring and ligation of the neck of the processus vaginalis should be performed (Anderson *et al.*, 1995). On the other hand ultrasonographic description of hydrocele is a comma-shaped lesion with its tail directed toward the inguinal canal and cyst within a cyst appearance which the fluid-filled canal collapsed during Valsalva's maneuver while the cyst came closer to the abdominal cavity that differs with the discussing case (Safak *et al.*, 2007). The hernia sac may contain structures such as ileum, jejunum, colon, omentum, vermiform appendix, acute appendicitis, Meckel's diverticulum, stomach, ovary, fallopian tube and, urinary bladder. Most of the cases of hernia containing ovary and fallopian tubes were reported to be found in children and, often accompanied with other congenital anomalies of genital tract. An article from Nigeria researched inguinal hernias in female children and reported the content of the hernia sacs as 46.6% ovary, 24.4% ovary and fallopian tube, 11.5% fallopian tube, 11.9% peritoneal fluid alone, 3.9% omentum and 1.7% loop of bowels (Osifo and Ovueni, 2009). A literature search revealed twelve case reports in adults. The majority presented with a palpable groin mass and they were diagnosed at time of surgery for suspected bowel hernia (Tagliaabue, 2011; Machado & Machado, 2011; Mandel *et al.*, 2010; Alzaraa, 2011). One woman presented with pelvic pain and was found on laparoscopy to have a rudimentary uterine horn and ovary herniating through the inguinal canal (Al Omari *et al.*, 2011). Coexisting mullerian and renal malformations have been described (Alzaraa, 2011; Al Omari *et al.*, 2011).

Conclusion

We present this case of the rare unusual content in a groin hernia, containing the ovary and the fallopian tubes and would like to remind the possible conditions of inguinal lump with a brief summary of literature.

Case Report

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