Case study

Inguinal Herniation of the Ovary: A Rare Complication Of Post-Tubal Sterilization.

ABSTRACT :

INTRODUCTION: The presence of female reproductive organs in an inguinal hernia is a rare occurrence. Patients may present with vague symptoms such as localized pain in the inguinal region. A visible swelling may also be present. The herniation of ovary and fallopian tube represents a medical emergency requiring immediate intervention to prevent ovarian torsion. While this condition can occur following tubal ligation, such cases are extremely rare.

CASE PRESENTATION: A 37-year-old female patient presented with a complaint of left-sided lower abdominal pain for 6 months, which was insidious in onset and gradually increased in intensity over the last 3 days before presentation. The pain was dull aching in nature and not relieved with medications. It was aggravated during the menstrual cycle. She had undergone single-incision laparoscopic tubal ligation 5 years ago. On examination, the significant finding was tenderness and swelling at the level of the deep inguinal ring. During operative exploration, an inguinal hernia was found containing an ovary with fallopian tube. The contents were reduced back into the pelvic cavity, and meshplasty was performed.

CONCLUSION: The presence of an ovarian hernia after tubal ligation is a rare finding. It may suggest a complication of tubal ligation. Having suspicion of this condition in female patients with inguinal hernia leads to early diagnosis and prompt surgical management.

Keywords: [Ovarian hernia, Tubal ligation, Inguinal hernia]

1. INTRODUCTION:

Inguinal hernias containing female reproductive organs, particularly the ovary and fallopian tube present a rare but significant clinical entity.

The prevalence varies across age groups. Ovarian inguinal hernias are most commonly seen in infants and young children. In adults ovarian inguinal hernias are rare. They are more likely to occur in women of reproductive age, but they are extremely rare in postmenopausal women. [1-3],

Risk factors in adults include obesity, previous pelvic surgery, pregnancy, and conditions that increase intra-abdominal pressure.[4]

Tubal ligation is a common permanent contraception method that involves the occlusion of both fallopian tubes. In single-incision laparoscopic tubal ligation, also known as single-port access (SPA), both tubes are accessed and ligated through a single small incision, typically near the umbilicus. While generally it is safe but this procedure may lead to complications, including ovarian herniation.[5]

The incidence of ovarian hernia as a complication of tubal ligation is not well documented due to its rarity. However, case reports suggest it can occur after months to years post-procedure. Healthcare providers should maintain awareness of this possibility when evaluating women with a history of tubal ligation who present with inguinal symptoms.

These cases often present with vague symptoms such as localized pain in the inguinal region or swelling, which may be exacerbated during menstruation. The diagnosis is frequently incidental, occurring during elective surgical procedures. Yet in some instances, it can manifest as an urgent surgical emergency.[6-10]

Recognizing and understanding this rare phenomenon is crucial for timely diagnosis and appropriate management, helping to avert potential complications and optimize patient outcomes.

CASE PRESENTATION:

A 37-year-old female patient presented with a complaint of left-sided lower abdominal pain for 6 months, which increased in the past 3 days. The pain was dull and aching and It was not relieved by medications. It was aggravated during the menstrual cycle.

The patient also reported experiencing constipation. No other significant complaints were noted.

She had undergone single-incision laparoscopic tubal ligation 5 years ago. Following the operation, she had no complaints until 6 months ago.

She has three children, all delivered by normal vaginal delivery. Her menstrual cycles were regular. She had no other significant past, personal, or family history.

1.1 Clinical Findings:

On clinical examination, the skin of the abdomen was normal. Finger-point tenderness was present over the left inguinal region, with palpation revealing a swelling measuring 2 cm × 2 cm, which had a smooth surface with ill-defined margins at the deep inguinal ring. The swelling did not increase in size with cough impulse and was irreducible when supine or with manual attempts.

Bowel sounds were present, and no organomegaly was detected. An old healed scar measuring 1 cm × 0.5 cm was horizontally placed just inferior to the umbilicus, which was likely of a previous tubal ligation scar.

Her cardiovascular, respiratory, and central nervous system examinations were normal.

Her per vaginal examination was normal. The per rectal examination revealed normal anal tone with a healed anal fissure and a skin tag at the 6 o'clock position.

1.2 Blood Investigation:

Her complete blood count was normal.No abnormalities in renal and liver function test .

1.3 X-ray abdomen standing:

X-ray chest and abdomen were normal .

1.4 Ultrasonography of Abdomen and Pelvis:

It was suggesting a defect of 2 cm size in the left inguinal region containing ovary with normal vascularity.

1.5 Management:

The patient underwent open left inguinal hernia repair. An incision measuring approximately 5 cm × 1 cm was made 1.5 cm above the midpoint of the inguinal ligament to the pubic tubercle.

The subcutaneous tissue was cut, and the external oblique aponeurosis was opened. An ovary with fallopian tube was found within the hernial sac .Which was healthy.

It was reduced back into the pelvic cavity and placed into the ovarian fossa. Hernia

repair was performed using a proline mesh measuring 6 cm × 11 cm. The external oblique aponeurosis was closed, and the skin was closed. The patient was discharged without any complications in the postoperative period of 1 week, and the sutures were removed on postoperative day 14.

Fig 1: Left ovary with Fallopian tube ascontent of left inguinal hernia.

2. DISCUSSION :

Our case report highlights the importance of considering the possibility of ovarian hernia in female patients presenting with inguinal hernias. [11]

The anatomical changes induced by tubal ligation may predispose women to atypical presentations of inguinal hernias. The ovary and fallopian tube can herniate through the inguinal canal, leading to symptoms such as pain and swelling.

The diagnosis of an inguinal hernia containing the ovary and fallopian tube can be challenging. Imaging studies such as ultrasound and X-rays may not always reveal the presence of these organs within the hernia.

In Patel et al. (2020) and Kim et al. (2019), patients presented with a pelvic lump, pain, and vomiting after 3 months and 2 weeks respectively, following tubal ligation. Laparoscopic management was performed, involving suspension of the ovary to the pelvic sidewall and placement of hernia mesh, with no complications following the procedure.[6,7,9,10]

In Sharma et al. (2018), a patient presented with a pelvic lump and pain, 6 months after tubal ligation. Open repair was performed by reducing the herniated ovary followed by open ovarian suspension to the pelvic sidewall and meshplasty with no complications.[8]

Both open and laparoscopic approaches can be used for ovarian hernia repair and both have good outcomes. The choice of surgical management depends on the operating surgeon.

3. Conclusion

While inguinal hernias are common, the unexpected presence of fallopian tubes and ovaries within them presents a rare but crucial diagnostic challenge for medical professionals.

A sharp eye and consideration of this possibility, especially in female patients, are essential for prompt and effective surgical intervention, ultimately preventing serious complications.[11,12]

Our case report adds to the existing literature on this topic and emphasizes the importance of considering this possibility in female patients presenting with inguinal hernias and managing it in a timely manner.

Consent

Consent has been taken from the patient.

Ethical approval

As per the international standard or university standard written ethical approval has been collected and preserved by author(s).

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