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Case Report

Unusual Presentation of Torsion of Ovarian Cyst(32weeks) in Reproductive Age Group and its Outcome

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ABSTRACT

Torsion of Ovarian cyst is one of the most common gynecological emergency encountered in routine practice. Ovarian cyst torsion refers to partial or complete rotation of ovary and its supporting structures which results in ischemic changes in ovary. Here we present a case of 32 year old female, P2L2 who presented with complaints of sudden onset of severe pain abdomen. Emergency Exploratory Laparotomy was done due to high suspicion of torsion. On intraoperative findings there was 2 turns of torsion present and cyst was already necrosed. Laparotomy proceeded to right salpingo-oophorectomy was done. Post-operative period was uneventful.

Keywords: Ovarian cyst, Ovarian torsion, Laparotomy, Salpingo-oophorectomy**.**

INTRODUCTION

Ovarian cyst torsion refers to partial or complete rotation of ovary and its supporting structures which results in ischemic changes in ovary. Although this condition is generally viewed as uncommon, studies suggest that ovarian cyst torsion is the fifth most common gynecological emergency, representing 2-3% of acute surgical emergencies.[1]

It occurs commonly in reproductive age group, more on the right side (60%) and often presents with lower abdominal pain and severe vomiting.[2] Too often the physical signs are not specific and the final diagnosis as determined through laparoscopy or during laparotomy differs from that based on clinical grounds.[3]

Congenitally long ovarian ligaments, excessive laxity of the pelvic ligaments or a relatively small uterus that 4 allows more space for the adnexa to twist on its axis may be predisposing factors. The infundibulopelvic ligaments suspend the movable ovary, allowing the ovary to position laterally and posteriorly to the uterus. The ovarian vessels travel along the infundibulopelvic ligaments which attach to the pelvic sidewall. Because adnexal tissue is not fixed, a big leading point, such as tumorous growth, can induce twisting. The medial side of the ovary is connected to the

uterus by the utero-ovarian ligament which is composed of muscular and fibrous tissue. Its function is to connect ovary to the uterus and support it. It also supplies blood from uterine artery to the ovary.

CASE REPORT

A 32 years old multiparous presented with complaints of abdominal pain which was generalized,more on the right lower quadrant, cramping type, severe in intensity since morning. Her last menstrualperiod was 3 weeks prior to presentation and itwas a regular cycle. Bowel and bladder habits were normal. Past medical or surgical history were not significant

On presentation, the patient was conscious and well oriented with stable vital signs. On physical examination, she was obese. On systemic examination, her respiratory and cardiovascular findings were unremarkable. On per-abdomen examination, a firm 32 weeks size mass was palpable with tenderness and rebound tenderness present on the right iliac fossa. Speculum examination was not significant.

On per vaginal examination, uterus normal size, anteverted, however, a tender cystic mass of approximately 14cm x 16cm felt through pouch of Douglas mobile from side by side, tenderness present on cervical excitation. She was managed with NSAIDS for pain with some relief. . Emergency ultrasound was done that showed large unilocular cystic lesion in peritoneal cavity measuring 18 x 20cm. Tumor markers like CA125 and CEA were within normal limits.

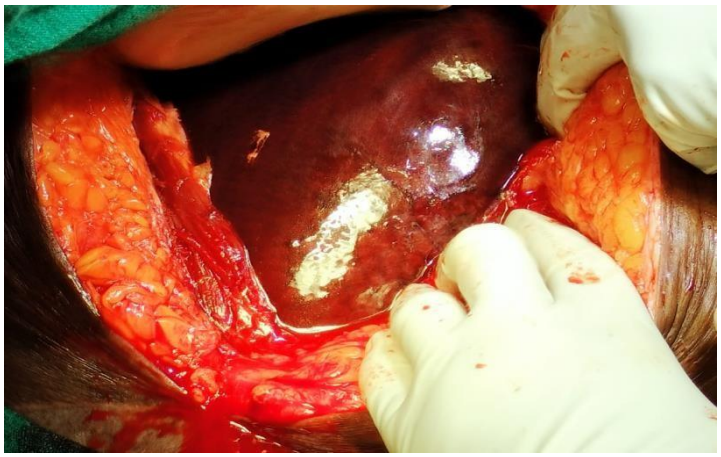

Figure 1: Intra-operative finding of huge ovarian cyst

Figure 2: Huge ovarian cyst torsion

Emergency laparotomy with Right salpingo-oophorectomy was done on the same day.

Intra operative findings : Blood stained ascitic fluid of 200ml, with large right hemorrhagic ovarian cyst of 20 X 16cm with necrotic appearance of cyst wall and ovary twisted two times seen. Serous type clear fluid approximately 1.5litres aspirated from the cyst. Left ovary and tube were normal. Postoperatively, patient was symptomatically relieved. Histopathology was suggestive of twisted serous cystadenoma. She was discharged on seventh post-operative day withoutany complications.

DISCUSSION

Ovarian torsion occurs due to partial or complete rotation of ovary and its supporting structures, hampering vascular supply of the ovary. Ovarian enlargement, adnexal masses, pregnancy, ovulation induction and previous pelvic surgery are the most common predisposing factors for ovarian torsion, and the exact mechanism of torsion varies according to its cause. Benign ovarian neoplasms carry an 11% risk, and dermoid tumours (a.k.a benign cystic teratomas), the most common ovarian neoplasms in young females are relatively common antecedent of adnexal torsion.[1,5] Malignant ovarian tumours are more likely to adhere to or invade other pelvic structures, hence carry a lower risk of torsion – only 2%.[1,6]

The diagnosis of torsion can be difficult because the presenting signs and symptoms, abdominal pain, nausea and vomiting, are common to many causes of acute abdomen including appendicitis, bowel obstruction, gastrointestinal infection, ruptured ovarian cyst, ectopic pregnancy, pelvic inflammatory diseases, cystitis and renal colic. Non-surgical misdiagnoses will delay surgical intervention and may lead to adverse consequences.[7] Therefore, the diagnosis of adnexal torsion must be considered in any female patient presenting with lower abdominal pain.

Data regarding cyst size and risk of torsion are conflicting, with some suggesting that torsion maybe more likely in larger cysts (>5 cm), and others suggesting that cysts larger than 5 cm in size are lesslikely to undergo torsion than smaller ones and canbe managed conservatively.

As stated in the case report done by Nasirietal,[10] cyst more than 10 cm isusually resected due to increased risk of malignancy, rupture or torsion. Management of cysts between 5 to 10 cm is controversial.[10] Similarly, in this case, the size of the cyst was larger than 5cm (20 cm x 16cm) and since patient had already completed her family, she was treated by salpingo-oophorectomy. Sixty- four percent of torsions occur on the right side.[2] It is believed that the lower rate of torsion on the left side is attributed to the protective nature of the descending colon and shorter utero-ovarian ligament on this side compared to its counterpart. This finding has been consistent with a case study of a 22-year-old nulliparous done by Cindy et al.[11]

Although the viability of an ovary declines as time elapses from the onset of pain to surgical detorsion, the ovary's dual blood supply makes it resilient to vascular injury and the exact duration ofvascular interruption needed to cause irreversible damage to the ovary is unknown. If ovarian torsion is suspected, timely intervention with diagnostic laparoscopy is indicated to preserve ovarian function and future fertility. A surgeon should not remove a torsioned ovary unless oophorectomyis unavoidable, such as when a severely necrotic ovary falls apart. The appearance of the ovary at time of surgery is not a reliable indicator of ovarian viability.

A study done by Balasubramaniam et al[12] proved that duration of pain cannot predict the ovarian salvageability and laparoscopic detorsion with or without oophoropexy would be the treatment of choice for adnexal torsion irrespective of the gradeof ischemia in females younger than 40 years old. However, the role of oophoropexy after detorsion to reduce the recurrence is not clear and the impact of oophoropexy on subsequent fertility merits further study.

Hence, there are many ways to perform the surgery and detorsion and ovarian conservation are almost always recommended now rather than salpingo- oophorectomy. An ovarian cystectomy is often performed for a benign ovarian mass. If malignancyis highly suspected, a salpingo-oophorectomy is needed.

CONCLUSION

Although the diagnosis of ovarian torsion is difficult and challenging, careful analysis of presenting symptoms such as sudden onset abdominal pain is very critical. It is apparent that prompt diagnosis is dependent on clinical history and a high index of suspicion. Accurate and detailed history taking is highly important, both of the presenting complaint and of the previous gynecological and surgicalhistory. Physical examination may elicit an adnexal mass or adnexal tenderness but can be non-specific. Pelvic ultrasonography can provide information on ovarian cysts. Once ovarian torsion is suspected, surgery is the mainstay of diagnosis and treatment.Ovarian cystectomy, oophorectomy or conservativetreatment with detorsion can be the treatment of choice.

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