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Dual Complication in a Single Ovarian Cyst – Torsion and Massive Hemorrhage - Rare Presentation

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Case Report

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Abstract: Ovarian cyst is a common gynecological entity in women of reproductive age group. It may be a neoplastic or benign enlargement of ovary. Here we present a case of 23 year old unmarried nulliparous girl presenting with acute pain lower abdomen with increase in size of abdominal mass for last 3 days. She gave history of abdominal mass for the past 3 months which increased suddenly to a size of 28 weeks size adding to diagnostic dilemma. Her vitals were stable but pallor was present. On ultrasonography diagnosis of right adnexal complex cyst with torsion was made. Patient after being transfused 2 packed blood cells was prepared for explorative laparotomy. Introperatively, torsion (3 twist) of hemorrhagic cyst of 15*15 cm was noted. Right sided adnexectomy was done. Postoperatively patient recovered well and her biopsy revealed hemorrhagic infarction of the cyst wall with residual ovarian tissue.
Keywords: Ovariancyst, Haemorrhage, Torsion, Complication.

INTRODUCTION

Ovarian cyst may have varied presentation ranging from asymptomatic and self-resolving cysts to different cyst related accidents namely torsion, rupture, and hemorrhage. Ovarian torsion is the partial or complete rotation of the ovary along its vascular pedicle [1]. Ovarian torsion usually occurs in reproductive age group and is common in a dermoid cyst or serous cyst adenoma. It restricts blood supply causing necrosis of ovarian tissues having deleterious impact on fertility. Torsion accounts for 2.7% of gynaecological emergencies and it frequently involves right ovary (60%) as the sigmoid colon causes restricted mobility of the left ovary [2, 3] Patient presents with sudden onset of severe unilateral lower abdominal pain worsening with time and radiating to thigh and back.

Nausea and vomiting are often present. Ultrasonography or CT scan are required to confirm the diagnosis.

The absence of blood flow within an ovary can support the diagnosis of torsion. Immediate surgery is mandatory to salvage the ovary. Type of surgery depends on the hemodynamic stability, patient's age, cyst size and its histopathological nature. Ovarian cystectomy and salpingo-oophorectomy is sufficient for benign lesions, while for lesions with a risk of malignancy laparotomy and careful intraperitoneal exploration and a biopsy are recommended. We present this case of huge twisted ovarian cyst. Here probably torsion followed by massive haemorrhage leading to its huge size.

CASE REPORT

23 year nulliparous girl presented to emergency with complaint of a swelling in the lower abdomen for past 3 months which was insidious in onset, gradually progressive associated with dull aching pain. However she had acute pain lower abdomen and rapid increase in the size of the swelling for the past 3 days. There was no history of fever, vomiting, or urinary problems. There was no history of cancer in the

family. She had history of constipation and renal stones in the past which was treated medically. Her menstruation was regular, with normal flow and duration with minimal pain. On examination patient looked sick, in distress, pallor++, PR-98/min, BP-116/61mmHg, RR- 24/min. B/L breast and lymph nodes were within normal limit. Per abdominal examination was tense, tender, a cystic mass ~ 28 weeks size with well-defined margins and regular surface was noted with restricted mobility; Bowel sound were present .Per rectal examination revealed– rectal mucosa was free, findings collaborated well with perabdominal findings. CNS, CVS, respiratory system – were within normal limit. Ultrasound was done which revealed a well-defined multicystic lesion with thickened internal septation without any internal vascularity finding suggestive of complex right adnexal lesion with torsion. There was no free fluid seen and B/L kidney were normal Her Hb-6.4 gm%, other tumor markers were normal except Ca125 which was mildly raised. [Ca125- 145.8U/mL, AFP- 0.91ng/mL, CEA-0.72ng/mL, HCG-0.59mIU/mL] LFT, KFT, coagulation profile, Xray erect abdomen were within normal limit. She received two packed red blood cells and was prepared for explorative laparotomy and proceeds under general anesthesia. Intraoperatively a right sided 15*15 cm hemorrhagic adnexal lesion noted with 3 times twist, with right side tubes and ovary not appreciated separately (Figure1). Left side adnexa and uterus were normal. Right sided adnexectomy performed and cyst along with right ovary and tube sent for HPE (Figure-2), post operatively patient recovered well and was discharged with an Hb of 8.1 gm% on post-operative day 7 with and advice to review in gynaecology OPD with HPE reports for stitch removal. Her HPE report revealed hemorrhagic infarction of the cyst wall with residual ovarian tissue. (Figure-3) Due to massive haemorrhage there was massive compression of epithelium, nature of epithelium was not recognizable but it was a benign cyst.

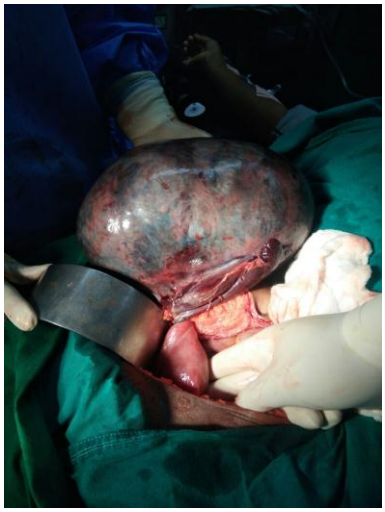

Fig-1: Intraoperative finding showing twisted ovarian cyst with massive haemorrhage

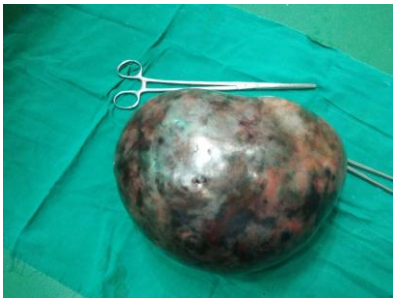

Fig-2: Postoerative- Ovarian cyst with massive haemorrhage

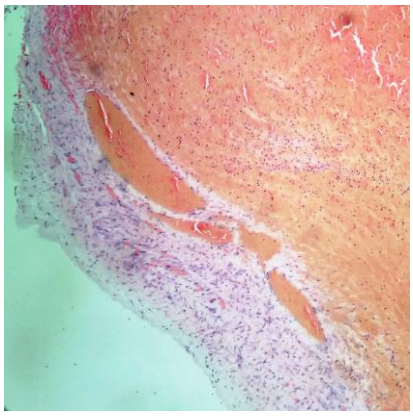

Fig-3: Histopathology showed hemorrhagic infarction of the cyst wall with residual ovarian tissue. (H & E, 20 xs)

DISCUSSION

Torsion of ovary is common in moderate sized, freely mobile ovarian cyst with long pedicle. The exact etiology is unclear. The hemodynamic theory proposes slight axial rotation causes partial arterial compression causing intermittent forcible arterial pulsation which aggravates axial rotation until it becomes complete. Complete torsion causes both venous and arterial occlusion and intense venous congestion with intracystic hemorrhage. The cyst subsequently increases in size and becomes tense and may even rupture.

Severe pelvic pain along with nausea and vomiting are present in 85% of cases [4,5]. However these symptoms are quite variable and nonspecific.[6] torsion if not treated timely can lead to intracystic hemorrhagic, cyst rupture, infarction, necrosis, gangrene of ovarian tissue and sepsis. Diagnosis is usually confirmed with ultrasound and Doppler. Enlarged ovaries, free fluid in pouch of douglas and probe tenderness are often present. *Whirlpool sign* i.e. swirl like image of blood flow in a twisted ovary vascular pedicle may be seen in 13–80% of cases on color Doppler [7]. Absent or reversed diastolic blood flow may be seen, although a normal Doppler flow does not exclude intermittent torsion.[8] Computed tomography aids the diagnosis in cases with diagnostic dilemma.

Torsion is an emergency which requires immediate surgical intervention. In most cases ovaries can be salvaged and detorsion followed by cystectomy can be attempted. Oophoropexy can be done to prevent recurrence. However in delayed cases with gangrenous tissue definitive surgery with ovariotomy (salpingo-oophorectomy) needs to be performed. Detorsion was traditionally avoided to prevent emboli and toxic substances from entering the circulation but of late, untwisting and re-establishing ovarian circulation can retain viable ovarian tissue with no systemic complications[9]. Ovarian cyst may require emergency exploratory laparotomy for haemorrhage, rupture, torsion or infarction in as many as 50% cases [10]. Timely diagnosis and surgery improves the prognosis Here probably torsion followed by massive haemorrhage leading to its huge size and severe anaemia which needs blood transfusion.

CONCLUSION

Patient in reproductive age group with ovarian cyst, presenting with acute abdomen with cyst size as big as 28 weeks can present as diagnostic dilemma. A strong suspicion should be kept for torsion as a cyst with moderate size undergoing torsion can reach upto big sizes due to intracystic hemorrhage as reported in this case. Timely diagnosis and surgery can greatly reduce the morbidity and subsequent outcome.

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