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Case Report

Bilateral adnexal torsion: an intraoperative surprise

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ABSTRACT

Bilateral adnexal torsion is an extremely rare event. With incidence of unilateral adnexal (especially tubal) torsion being approximately 1 in 1.5 million women, that of bilateral torsion is even more scarce. Here we have a case of a 47 year old parous lady who presented to us with severe lower abdominal pain of 1 week duration, associated with vomiting. The patient was evaluated and taken up for surgery with the suspicion of adnexal torsion-where the extremely uncommon finding of bilateral adnexal torsion was noticed with right fallopian tube twisted around the left. Very limited literature is available on this condition with very few cases of bilateral adnexal torsion being reported. We are publishing this case for its rarity.

Keywords: Bilateral adnexal torsion, Case report, Patient

INTRODUCTION

Bilateral adnexal torsion is an exceptionally rare gynaecological emergency characterised by torsion involving both adnexa(tubes and ovaries), resulting in compromised vascular supply, tissue ischaemia and potential necrosis if timely intervention is not undertaken.[1] Very limited literature is available on this case.

With a unilateral adnexal (especially tubal) torsion occurring in approximately 1 in 1.5 million women, this entity has an even lower incidence, hence of interest to surgeons.[2] It presents as acute abdomen, hence must be differentiated from other gynaecological and surgical conditions.[3] Early surgical treatment is crucial in fertility preservation as it helps avert necrosis.[4] We are publishing this case for its rarity.

CASE REPORT

Mrs X, 47 year old parous lady presented to the Gynaecology OPD of Vijaya hospital with C/O lower abdominal pain radiating to the back for past 1 week (left>right) which was severe in intensity, intermittent in nature, associated with vomiting, increased after micturition and defecation, decreased with analgesics.

Menstrual history

The patient's menstrual cycles were regular, occurring every 30 days with a 4-day duration and normal flow. Her last menstrual period (LMP) was on 6/12/25, and she presented on day 32 of her cycle.

Marital history

The patient was married at the age of 22 years.

Obstetric history

The patient is P2L2, with two previous normal vaginal deliveries. Her last childbirth was 25 years ago, and she subsequently underwent tubal ligation.

Medical history

The patient was recently diagnosed with hypothyroidism and is currently taking Tab Thyroxine 25 mcg once daily in the morning (1-0-0).

Past surgical history

The patient underwent tubal ligation 25 years ago.

Family history

There is no significant family history.

Drug allergy

The patient is allergic to Tab Drotaverine and Tab Cetirizine.

General examination

The patient was conscious and oriented. She was obese, with a BMI of 30 kg/m². There was no pallor or pedal edema. Vitals were stable, and systemic examination was normal.

Abdominal examination

The abdomen was soft, obese, and non-tender. The tubal ligation scar was healthy.

Per speculum examination

The cervix appeared healthy.

Per vaginal examination

The uterus was of normal size, anteverted, and mobile. Fullness was present in the posterior fornix, with no forniceal tenderness.

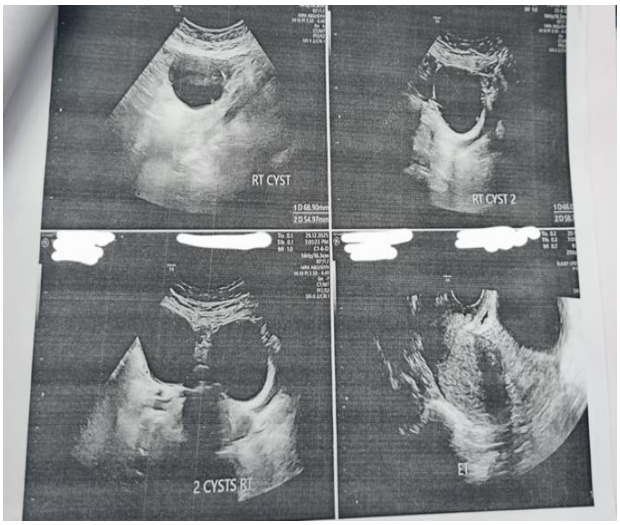


Figure 1: Ultrasound findings.

She had undergone initial evaluation at outside hospital, with ultrasound whole abdomen showing right adnexa-2 large cysts 6.8×5.4 cm and 6.6×5.8 cm with subtle septation in one cyst with no solid components/abnormal vascularity and no evidence of free fluid. CA 125 was within normal limits (3.75U/l).

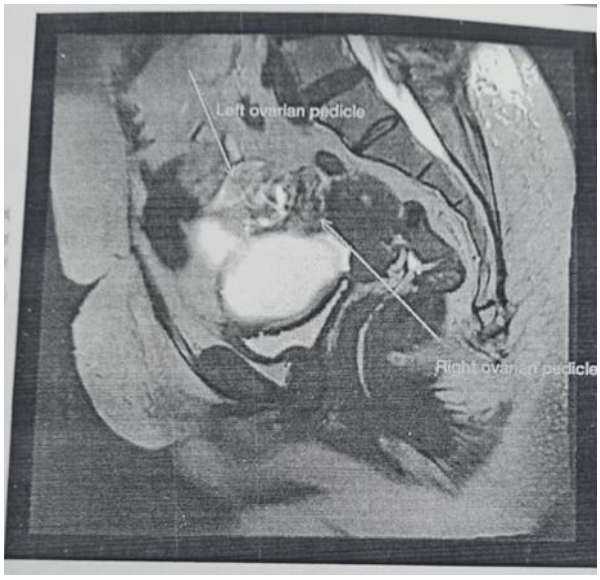


Figure 2: MRI findings.

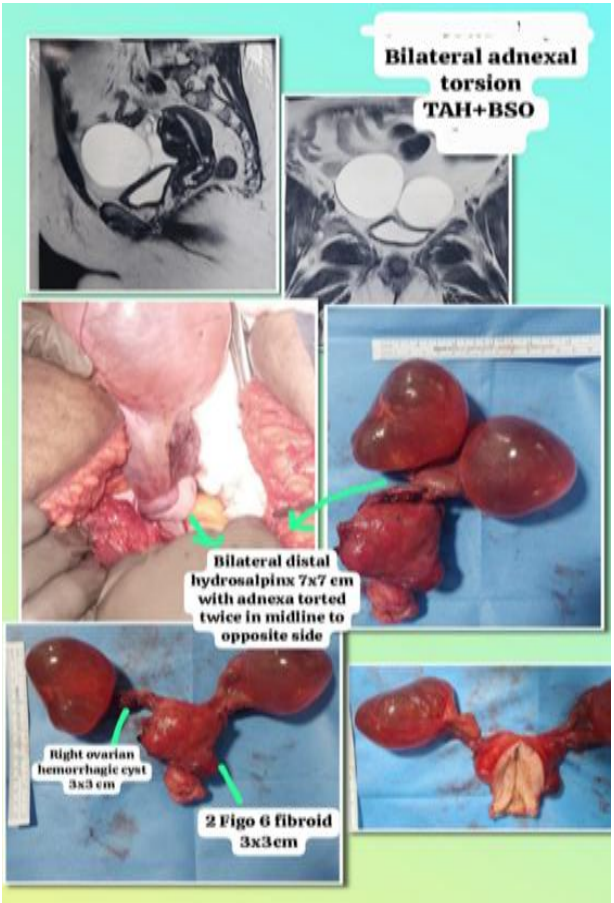


Figure 3: Intraoperative findings.

MRI pelvis revealed right ovarian pedicle extending anterior to uterus towards left and appeared mildly bulky (not twisted-S/O torsion-detorsion) with an 8.6×6.5 cm thin walled unilocular cyst anterior to uterus on left with T2 hyperintense and T1 hypointense simple fluid without diffusion restriction/blooming. No solid component/ papillary projection. Right ovary not seen separately. Left ovarian pedicle extending anterior towards right-edematous and twisted with whirlpool sign (left adnexal torsion/partial torsion) with a 7.1×7 cm thin unilocular cyst anterior to uterus on right, with T2 hyperintense and T1 hypointense simple fluid without diffusion restriction/ blooming. No solid component/ papillary projection.



Figure 4: Whirlpool sign.



Figure 5: Follicular ring sign.

With a very unclear picture of the anatomy with the MRI findings and the clinical presentation of the patient, a provisional diagnosis of adnexal torsion was made. We proceeded with laparotomy.

Intraoperatively we noticed a right ovarian cyst 7×7cm twisted 2.5 times in midline around left adnexal pedicle containing left ovarian cyst of size 7×7 cm. Both cysts were on left side of the patient. Uterus 8wks size with 2 subserosal fibroids (FIGO 6) in anterior and left lateral walls-each 3×3 cm.

The patient underwent adnexal detorsion+total abdominal hysterectomy+Bilateral salpingo oophorectomy.

Histopathogical examination revealed both ovaries-benign serous cystadenoma with tubes-no specific pathology, cervix-chronic cervicitis, endometrium of proliferative pattern and myometrium showing benign leiomyomata.

DISCUSSION

Bilateral adnexal torsion is the torsion of both fallopian tubes and ovaries, leading to vascular obstruction and potential necrosis.It is an extremely rare event. Very limited literature is available on it. It can be caused by multiple factors including tubal factors like congenital tubal abnormalities, hydrosalpinx, hematosalpinx, tubal neoplasms, and primary tubal surgeries such as tubal ligation. Ovarian and paratubal masses and others like pregnancy, trauma, adhesions, and pelvic congestion.[5]

Clinical presentation shows lower abdominal pain, nausea, vomiting, urinary complaints, adnexal mass and uterine bleeding.

Most commonly, pain begins in the lower abdomen or pelvis on the affected side ,may radiate to the back, thigh, or groin areas, nature: continuous/paroxysmal and sharp, rebound tenderness can be detected on the torsion side. It may be associated with nausea which typically coincides with the onset of pain and vomiting may follow. Leucocytosis and fever are common and may indicate necrosis. Tenderness may be focal, diffuse or not apparent. But none of these are specific properties.[6] One case of bilateral adnexal torsion with primary infertility has been reported by Murphy et al (incidentally diagnosed during laparoscopy).[7]

Diagnosis is by transvaginal ultrasound where there can be whirlpool sign shows the twisted vascular pedicle as a swirling target pattern or the ring sign which reveals thickened, bright rims around displaced peripheral ovarian follicles due to edema.[8,9]

Typical whirlpool sign wasn't seen in our patient on transvaginal ultrasound as both cysts were on left side,but was picked up in MRI.

It presents as acute abdomen most of the time, hence differential diagnosis must include acute appendicitis, ovarian cyst rupture, ectopic pregnancy, pelvic inflammatory disease, endometriosis, leiomyoma degeneration, intestinal obstruction or perforation, ureteric colic.

Management is only by surgery. There is no scope for any medical management. If the torsioned adnexa are not necrotic/ no evidence to suggest malignancy-adnexal detorsion without salpingo oophorectomy can be applied as a fertility-protecting surgery. If the fallopian tube is necrotic/ an adnexal neoplasm is detected/ completed

fertility-salpingectomy is done. Early surgical treatment helps in detecting before necrosis-thereby fertility preservation is possible in younger adults.

CONCLUSION

Bilateral adnexal torsion is an extremely rare entity presenting with acute abdomen. Clinical features include lower abdominal pain, nausea, vomiting, urinary complaints, adnexal mass, and uterine bleeding. Diagnosis is most often made intraoperatively. Management is purely surgical with either detorsion or salpingectomy+/-oophorectomy as options-where the surgeon has to decide based on age and fertility needs of the patient and presence or absence of necrosis or neoplasm intraoperatively. Early surgical treatment is crucial in fertility preservation as it helps avert necrosis.

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