

## Double trouble: A Combined Ovarian and Axial Torsion of Uterus

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Torsion of the uterus is rare and mainly involves pregnant uterus. A combination of ovarian torsion with an axial torsion of uterus in a non-gravid woman is extremely rare. The exact incidence of uterine torsion is not clearly established, as only few case reports are available in the literature. Usually this kind of torsion are per operative diagnosis and very difficult to diagnose pre operatively. Here we present one such case with a combined ovarian and axial torsion of uterus.

**Keywords:** abdominal mass, axial torsion, combined, mucinous cystadenoma, non-gravid.

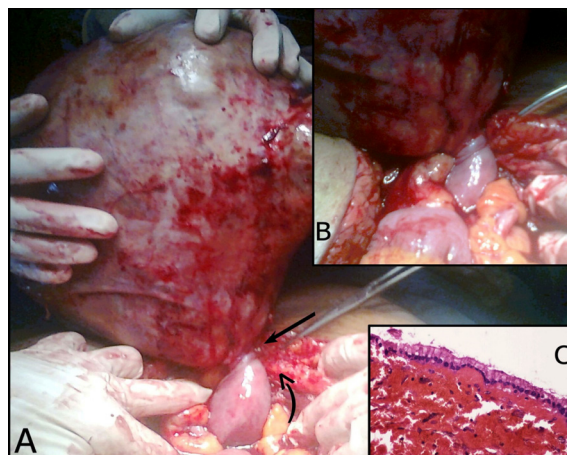
### INTRODUCTION

Torsion of the uterus is rare and mainly involves pregnant uterus. A combination of ovarian torsion along with an axial torsion of uterus, especially in a non-gravid woman is extremely rare. We describe one such rare entity here.

### CASE

A 75-year-old post-menopausal woman came to us with a history of abdominal mass associated with pain of eight months duration. The mass was small to begin with and gradually progressed to attain the present size. The abdominal pain was dull aching and distributed all over the abdomen. She had no other significant complaints. On general examination, her vital signs were stable and she appeared pale. On inspection, her abdomen was distended upto midway between the umbilicus and the xiphisternum. Abdominal palpation revealed a mass of 32-34 weeks gravid uterus size of variable consistency. The borders of the mass could not be clearly delineated. Per speculum examination showed that the cervix was flushed with the vagina. On bimanual examination, the uterus could not be separately made out from the mass. Routine investigations were within normal limits. The CA-125 level was 71.66 U/ml. CT scan of abdomen showed a large left adnexal

benign cystic mass of 22×20×14 cm size occupying the entire pelvis and abutting the anterior abdominal wall. The lesion showed multiple loculations with nodular calcifications. There was no ascites and lymphadenopathy. The right ovary and uterus appeared atrophic. The left ovary was not separately seen.



**Figure A.** Showing the gross photo of the ovary which has undergone two rounds of torsion (straight arrow) and uterus has undergone axial torsion in anticlockwise direction (curved arrow). **Figure B.** Showing closer view of Figure A. **Figure C.** Microphotograph showing cyst wall lined by mucinous type of columnar epithelium with underlying cyst wall showing congestion and areas of haemorrhage.

### CORRESPONDENCE

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She was subjected to laparotomy, which revealed a huge mass that was adherent to the peritoneum all around. The mass was bluntly dissected from the peritoneum and exteriorized. The left ovary had undergone two rounds of torsion at the pedicle, in an anticlockwise direction (Figure A - straight arrow), which was untwisted. On the opposite side, we noticed that the round ligament was posterior and the ovary was anterior. This was because of an axial torsion of the uterus by 180 degree in the anticlockwise direction (Figure A- curved arrow). The anatomy was restored and a total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. The right ovarian mass was subjected for histopathological examination. Histology revealed a multiloculated cyst lined by a single layered columnar epithelium having a basal nucleus with an apical mucinous pale cytoplasm (Figure C). This was diagnostic of mucinous cystadenoma. The fibrous cyst wall showed much hemorrhage (Figure C, inset) secondary to torsion.

#### COMMENT

Combined ovarian and uterine torsion in a non-gravid woman is extremely rare. Uterine torsion is defined as a rotation of more than 45° around the long axis that occurs at the junction between the cervix and the corpus of the uterus. The extent of the torsion is most often 180°. The first case of uterine torsion was reported by Times in 1861.<sup>1</sup> Uterine torsion is prevented by round ligament and broad ligament, but exact mechanism of axial torsion is difficult to explain.<sup>2</sup>

The incidence of ovarian torsion alone is approximately 3% among acute gynecological conditions.<sup>3,4</sup> The important risk factors include pregnancy, menopause, increased length of ovarian ligaments, pathologically enlarged ovaries (> six cm), fibroids, ovarian masses and fixation of uterus by adhesions. The torsion of

ovary usually occurs along with torsion of fallopian tubes and 80% of them are unilateral.

This case report highlights the rare occurrence of a combined ovarian and uterine torsion in a non-gravid woman. Clinical manifestation varies from acute to chronic or no symptoms. Rarely, torsion can be of sufficient degree to arrest uterine circulation and result in acute abdominal catastrophe. Usually this kind of torsion is per-operative diagnosis and is very difficult to diagnose pre-operatively. Chronic torsion of uterus leads to massive infarction and hysterectomy may have to be considered in such cases of prolonged torsion. To conclude, combined ovarian and uterine torsion is a rare complication that must be considered in the differential diagnosis of non-specific acute abdominal pain after common causes are ruled out. The present case report attempts to create an awareness of this rare combination of uterine and ovarian torsion.

#### REFERENCES

1. Attapattu JA, Prussia PR, Menon S. Torsion of a non-pregnant fibromyomatous uterus. *Int J Gynaecol Obstet.* 1994;45:163-4.
2. Matsumoto H, Ohta T, Nakahara K, Kojimahara T, Kurachi H. Torsion of a non-gravid uterus with a large ovarian cyst: usefulness of contrast MRI. *Gynecol Obstet Invest.* 2007;63:163-5.
3. Hibbard LT. Adnexal torsion. *Am J Obstet Gynecol.* 1985;152:456-61.
4. Burnett LS. Gynecologic causes of the acute abdomen. *Surg Clin North Am.* 1988;68:385-98.