

## A RARE CASE OF OVARIAN TORSION IN A POSTMENOPAUSAL WOMAN

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### ABSTRACT

Ovarian torsion is a common phenomenon in the reproductive age group women in contrast to the postmenopausal women where it is rare occurrence. A prompt treatment of acute symptoms and a detailed workup of the case for a planned management for the same is of paramount clinical importance.

**KEYWORDS:** Ovarian torsion, benign, postmenopausal.

### INTRODUCTION

Ovarian torsion is one of the common gynaecological emergencies accounting for almost 3% of the emergency gynaecological surgeries.<sup>[1]</sup> A complete or a partial twisting of ovary along its own axis is called ovarian torsion. It is more common in women of reproductive age group, however on rare occasion it can also occur in premenarcheal girls, postmenstrual girls or even in post-hysterectomized women. Since the prevalence of ovarian torsion is low in postmenopausal women its diagnosis can be missed, leading to procrastination in appropriate management.

### CASE REPORT

A 55-year-old P3L3 woman, presented to emergency with pain abdomen since 3 hours. Pain was continuous and severe in intensity and associated with 3 episodes episode of vomiting. Her bowel and bladder habits were normal. No history of fever or similar episode in the past. No significant past medical or surgical history was noted. She was postmenopausal for 10 years. On examination patient was restless and in excruciating pain. Her Pulse rate was 120/

minute, blood pressure 100/80 mmHg, respiratory rate 28/minute and oxygen saturation 97% in room air. On per abdominal examination a 24 weeks size, tender abdominopelvic mass was felt. Same mass of mixed consistency was felt on per vaginal examination. On per rectal examination rectal mucosa was free. Her haemoglobin was 10.7 gm/dL, total leucocyte count  $8 \times 10^3$ , with normal liver and kidney function test. Her cancer antigen-125 was 18 IU/L.

Abdominal ultrasound revealed a large anechoic cystic lesion of 20.8 cm  $\times$  14 cm  $\times$  13.9 cm in the left adnexa extending into the abdomen with absent arteriovenous flow on colour doppler flow imaging suggesting possibility of ovarian torsion. Given the non – responsive nature of patient's symptoms to the initial injectable analgesics and ultrasound findings suggestive of ovarian torsion, decision for emergency exploratory laparotomy was taken. Abdomen was opened through midline vertical incision (Figure 1). Peritoneal fluid was sent for cytology. Intraoperatively a left ovarian cyst containing haemorrhagic fluid of around 20  $\times$  15 cm occupying the abdominal cavity was seen with three complete twists around the ovarian pedicle was found ( Figure 2 and Figure 3). A total abdominal hysterectomy with bilateral salpingo-oophrectomy was performed. Abdomen was carefully inspected for any evidence of suspicious deposits. Peritoneal fluid was negative for malignant cells. Histopathology was reported as left ovarian mucinous cystadenoma. Her post -operative period was uneventful and she was discharged on day seven of the surgery.



**Figure 1: A 20x15 cm twisted ovarian mass delivered out of the abdomen by a midline vertical incision.**



**Figure 2: The twisted ovarian pedicle showing 3 complete turns.**



**Figure 3: Necrotic and bluish haemorrhagic areas in the ovarian cyst after de-torsion along with atrophic postmenopausal uterus.**

## DISCUSSION

Ovarian masses are encountered in around 5%–17% of postmenopausal women of which about 30% are malignant.<sup>[2]</sup>

Malignant masses incite inflammation and adhesions with the neighbouring tissues therefore torsion is an unlikely phenomenon in this age group. The incidence of ovarian torsion in the postmenopausal women ranges between 2%–35%.<sup>[3]</sup> Yousefi et al and Eitan et al. have reported malignancy in about 20% of the postmenopausal women who presented with ovarian torsion.<sup>[4,5]</sup> Serous tumour was the most common type of tumour in these women. The most common signs and symptoms that occur due to ovarian torsion are nausea, vomiting, acute abdominal pain and peritonitis.<sup>[1,3-15]</sup> However in postmenopausal women these typical symptoms may not be present or often overlooked. In the study by Cohen et al. continuous dull aching pain was the most common symptom present in postmenopausal women whereas premenopausal women mostly presented with acute abdominal pain.<sup>[3]</sup>

Ovarian torsion compromises the blood supply to the ovaries leading to ovarian necrosis and hence can affect fertility in young women of childbearing age, needing aggressive management in terms of laparoscopy or laparotomy with de-torsion of the affected ovary. On the contrary fertility is not an issue in postmenopausal women, such aggressive management is usually not practiced.<sup>[16]</sup> A prompt management of acute symptoms along with a meticulous evaluation of the nature of the mass prior final management is imperative.<sup>[16]</sup> Cohen et al. have reported that timing from diagnosis to surgery was significantly longer (24 hours versus. 6 hours) in postmenopausal women when compared with premenopausal women.<sup>[3]</sup> Various other studies have also reported a delay of 6 hours–6 months from initial presentation to definite management in the postmenopausal age group.<sup>[3,5-9,11,13]</sup>

Ultrasound with doppler studies of ovarian vessels is the investigation of choice to support the diagnosis of torsion. Computed tomography scan and magnetic resonance imaging can be useful in making diagnosis and differentiating

benign form malignant masses. Since the incidence of malignancy is high in postmenopausal women, tumour markers should always be done. Wherever feasible an intraoperative frozen section should be performed to avoid a suboptimal surgery for malignant masses and avoiding more extensive surgeries in benign cases. Laparoscopy or emergency laparotomy with ovarian de-torsion with or without oophorectomy is usually the management of choice though more conservative approach is also acceptable in benign lesions. Since the risk of malignant adnexal masses are more common in the menopausal age group a total abdominal hysterectomy with bilateral salpingo-oophorectomy is also widely practiced.<sup>[3-15]</sup>

Ovarian torsion as a diagnosis can be often overlooked in postmenopausal women due to their low incidence and atypical presentation leading to a delay in their initial management. High index of suspicion is needed while managing postmenopausal women with adnexal masses with acute symptoms and adnexal torsion should always be kept as one of the important differential diagnosis.

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