

# Torsion of Serous Cystadenoma - A Rare Entity

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**Abstract:** Aim and Background: Ovarian torsion is a surgical emergency, accounting for 2.7 % of acute gynaecological complaints. Torsion is a complication of ovarian tumors, with an incidence 6.9 % of all ovarian tumors, with an average patient age of 29.8, that occurs more commonly in pregnant than non pregnant women with ovarian tumors. Benign ovarian neoplasms are 12.9 times more likely to undergo torsion-possibly related to the tendency of malignancies to adhere to local structures (1). Case Description: A 44 year old P2L2 with complaints of sudden onset of pain abdomen since 30 minutes, multiple episodes of vomiting and with one syncopal attack. On examination vitals were stable. PA-Abdominal mass corresponding to 30-32 weeks of gravid uterus, cystic in nature, all borders felt, guarding +, rigidity+, tenderness + PS- Cervix, Vagina healthy. PV- Uterine size couldn't be made out, cystic mass corresponding to 30-32 weeks size of a gravid uterus felt in b/l and posterior fornices, tenderness. MRI scan- Right adnexal cyst measuring 24\*20\*12 cm suggestive of Right simple ovarian cyst. Patient underwent Emergency Exploratory Laparotomy and Right ovarian cyst of 20\*25 cm with 1 torsion noted, 2 litres of haemorrhage fluid drained. Left ovary and uterus were normal. Patient underwent Right salpingoophorectomy. Frozen section of the cyst was negative for malignancy. Conclusion: Torsion of a large benign ovarian cyst is very rare. The key to effective management is an accurate diagnosis and consideration of the age of the patient. An attempt to save the Ovarian tissue in young females should be made. However, oophorectomy is the surgery of choice in older females whose family is completed. Clinical Significance: Ovarian torsion occurs more commonly in benign lesions of 4-8cm (2). However, torsion in such huge cyst of 24\*20\*12 cm is highly unlikely which makes this case a rare entity.

**Keywords:** Ovarian Torsion, Surgical Emergency, Benign Ovarian neoplasms, Abdominal mass, Exploratory laparotomy, Salphingo oopharectomy

## 1. Introduction

Ovarian torsion is a surgical emergency, accounting for 2.7 % of acute gynaecological complaints. Torsion is a complication of ovarian tumors, with an incidence 6.9 % of all ovarian tumors, with an average patient age of 29.8, that occurs more commonly in pregnant than non- pregnant women with ovarian tumors. Benign ovarian neoplasms are 12.9 times more likely to undergo torsion- possibly related to the tendency of malignancies to adhere to local structures (1).

## 2. Case Description:

A 44 year old P2L2 with complaints of sudden onset of pain abdomen since 30 minutes, multiple episodes of vomiting and with one syncopal attack. Menstrual History LMP- 23/9/2023, Cycles- Regular, no clots/ dysmenorrhoea. Obstetric History- P2L2, Previous 2 Lower segment Cesarean section, Last child birth- 20 yrs back. On examination, PR- 90 bpm, BP- 120/80 mmhg, RR- 16 cpm, SpO2- 98% at RA. RS, CVS- Normal findings. Per Abdominally-Abdominal mass corresponding to 30-32 weeks of gravid uterus, cystic in nature, all borders felt, guarding +, rigidity+, tenderness +. Per speculum examination- Cervix, Vagina healthy. Per Vaginal examination- Uterine size couldn't be made out, cystic mass corresponding to 30-32 weeks size of a gravid uterus felt in b/l and posterior fornices, tenderness +.

**Blood Investigation-** Hb- 13.2, TC- 13200, PLT- 342000 CA 125- 24.4

USG- Well defined cystic lesion of 22\*20\*12 cm with internal septations. No ascites, No Lymph node involvement. RMI- 24.4.

MRI scan- Right adnexal cyst measuring 24\*20\*12 cm suggestive of Right simple ovarian cyst. Left ovaries, uterus-

Normal No ascitis, No lymph node involvement. (**Figure- 1 and 2**)

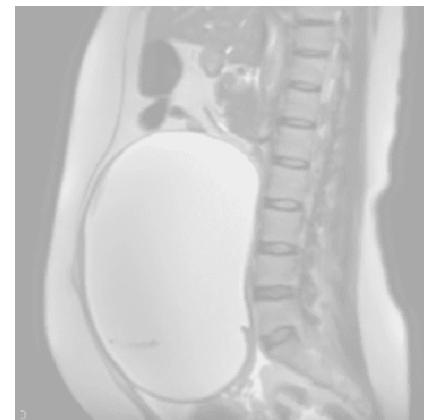


Figure 1



Figure 2

Patient underwent Emergency Exploratory Laparotomy and Right ovarian cyst of 20\*25 cm with 1 torsion noted, 2 litres of haemorrhage fluid drained. Left ovary and uterus were

normal. Patient underwent Right salphingoophorectomy. (Figure 3 and 4)

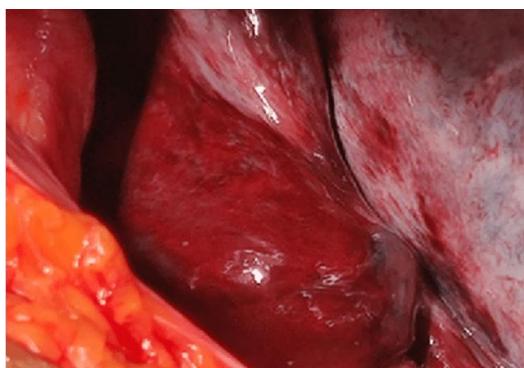


Figure 3



Figure 4

Frozen section of the cyst was negative for malignancy. HPE report-a cyst lined by single layer of ciliated columnar epithelium without atypia or mitoses or stromal invasion suggestive of Benign Serous Cystadenoma. (Figure 5)

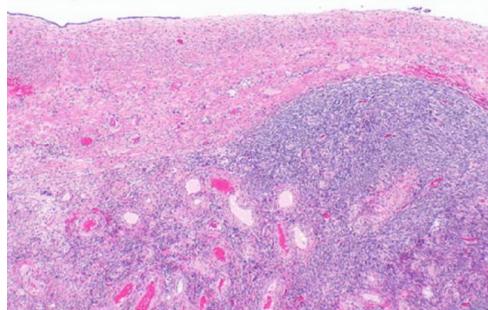


Figure 5

### 3. Discussion

Ovarian torsion is a gynecologic surgical emergency, involving partial or total rotation of the ovary about its vascular axis. This has the potential to impede venous or lymphatic drainage, which can result in congestion of the ovarian parenchyma and reduction or cessation of arterial perfusion, leading to infarction, hemorrhagic necrosis, and gangrene (3). Abdominal or pelvic pain is common but is not always sudden in onset or severe. Nausea and vomiting occur in 70% (4). The first-line imaging modality in the diagnosis of ovarian torsion is ultrasound. Ultrasound has been shown to have higher sensitivity to CT for ovarian torsion without exposure to ionizing radiation. MRI is the preferred modality to image an ovarian mass that has resulted in torsion (5).

### 4. Conclusion

Torsion of a large benign ovarian cyst is very rare. The key to effective management is an accurate diagnosis and consideration of the age of the patient. An attempt to save the Ovarian tissue in young females should be made. However, oophorectomy is the surgery of choice in older females whose family is completed.

#### Clinical Significance

Ovarian Torsion is a rare clinical scenario that necessitates swift identification and prompt intervention for best outcome.

#### List of Abbreviations

USG- Ultrasonography  
MRI- Magnetic Resonance Imaging  
CT- Contrast Tomography  
HPE- Histo pathological Examination

### References

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#### Figures-

Figure 1- MRI of Abdomen and Pelvis- Lateral View  
Figure 2- MRI of Abdomen and Pelvis- Antero Posterior View  
Figure 3- Right Ovarian Cyst with Torsion  
Figure 4- Intra op finding of the Right Ovarian Cyst  
Figure 5- Microscopic image of Benign serous Cystadenoma-10x

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