

Management of Ovarian Torsion at Ipswich Hospital: A Retrospective Audit

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INTRODUCTION / BACKGROUND

Ovarian torsion is a gynaecological emergency involving rotation of the ovary around its ligamentous supports, compromising vascular supply. This may result in ischaemia, necrosis, and loss of ovarian and tubal function, with significant implications for fertility, especially in younger women.

Typical Presentation:

- Acute pelvic or abdominal pain
- Nausea and vomiting
- Palpable adnexal mass (6–8 cm increases risk)
- Nonspecific symptoms often delay diagnosis

Management Principles:

- Urgent imaging (TVUS or abdominal ultrasound)
- Prompt surgical intervention
- **Detorsion**, even in ischaemic-appearing ovaries, is recommended to preserve fertility

Epidemiology

- Accounts for 3% of all gynecological emergencies
- 90% occur in women <50 years
- 10% occur post-menopause
- 56% associated with benign ovarian masses

Incidence:

- 5 in 10,000 pregnancies (commonest between 6–14 weeks)
- 3–6% in ovulation induction (up to 16% with OHSS)

OBJECTIVES / AIMS

To evaluate the diagnosis and management of surgically confirmed ovarian torsion cases at Ipswich Hospital from February 2012 to May 2024, with a focus on adherence to current best practice and fertility-preserving approaches.

Audit Standard:

Based on **BMJ Best Practice** guidance:

- Early clinical suspicion in acute pelvic pain
- Timely imaging (transvaginal or abdominal ultrasound)
- Senior review within 6 hours
- Urgent surgical intervention where torsion is suspected
- Preference for **laparoscopic detorsion** over salpingo-oophorectomy, even for necrotic-looking ovaries

CONCLUSION

This audit identified encouraging practices such as a relatively high rate of timely reviews (66% within 6 hours). However, only 40% of patients received surgery within 12 hours of the decision, which may have contributed to avoidable loss of ovarian function — especially critical in women of reproductive age.

Despite BMJ Best Practice guidance promoting detorsion over oophorectomy, only 4 of 27 patients (15%) underwent detorsion. This reflects a low rate of conservative, fertility-preserving surgery, despite increasing evidence supporting this approach.

Multiple studies have demonstrated ovarian function can return even when the ovary appears necrotic intraoperatively, with one study showing recovery in 93% of such cases [2][51]. These outcomes have also been reproduced in paediatric populations managed conservatively [16][48][55][69][71][72].

There is an urgent need to align local practice with evidence-based guidance, favouring detorsion in all cases unless malignancy or severe haemorrhage is suspected. Improving surgical timing and promoting fertility-sparing surgery should be key objectives in managing ovarian torsion.

METHODS

- **Design:** Retrospective audit
- **Data Source:** Patient electronic records
- **Population:** 27 patients with confirmed surgical diagnosis of ovarian torsion
- **Data Collected:**

Age, BMI, parity

Timeliness of clinical and consultant reviews

Imaging modality

Time from surgical decision to operation

Intraoperative findings and procedures undertaken

RESULTS

Demographics

- 70% were under 40 years old
- 85% had BMI <30
- 44% were nulliparous

Timeliness of Review

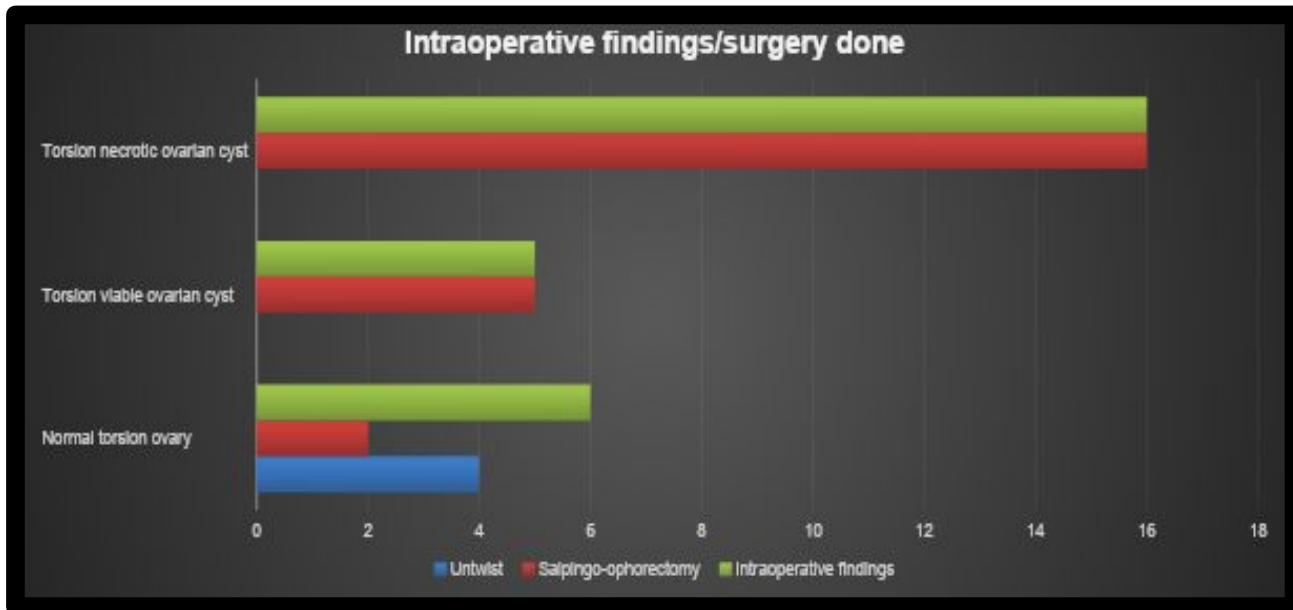
- 66% seen within 6 hours of referral
- 62% reviewed by consultant within 6 hours

Timing of Surgery Post-Decision

- <12 hours: 40%
- 12–24 hours: 22%
- 1–2 days: 25%
- 3–6 days: 11%

Intraoperative Findings & Procedures

- 16 patients: Torsion of necrotic ovary → 16 salpingo-oophorectomies
- 5 patients: Torsion with complicated cysts → 5 salpingo-oophorectomies
- 6 patients: Torsion of normal ovaries
 - 4 underwent detorsion
 - 2 underwent salpingo-oophorectomy



The left ovary is grossly enlarged and abnormally positioned in the pouch of Douglas. The left ovary appears mildly echogenic with small peripheral cysts likely to reflect stromal oedema secondary to venous congestion. There is absence of vascular flow on colour Doppler. Small volume free fluid is present in the pelvis.

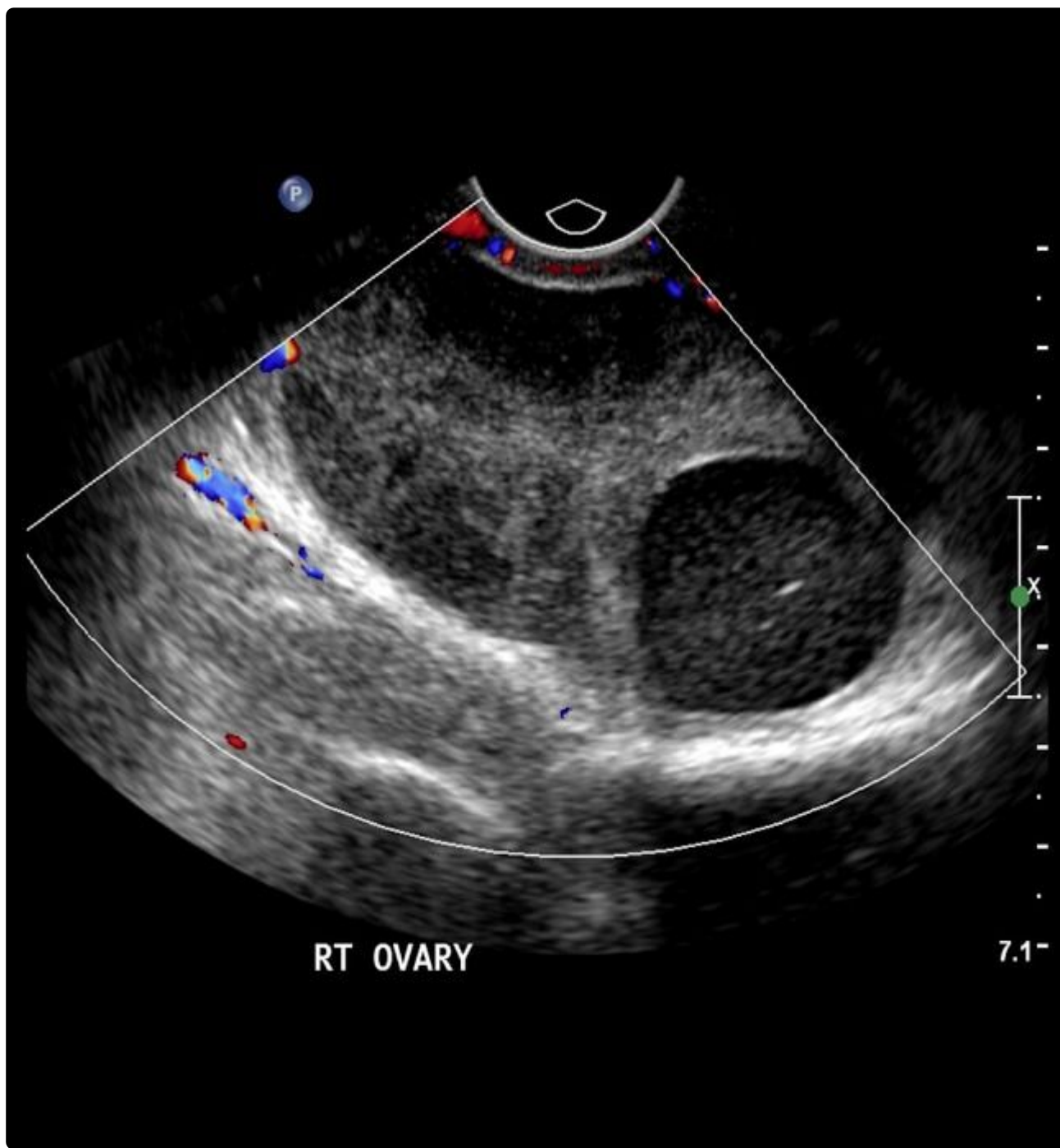


Figure: Transvaginal ultrasound of a torted right ovary with a complex cyst.
The image demonstrates an enlarged ovary with peripheral follicles and a centrally located cystic structure. There is reduced central vascular flow on color Doppler, consistent with ovarian torsion.

REFERENCES

1. BMJ Best Practice. Ovarian torsion. BMJ Publishing Group. [Accessed June 2025]. Available from: <https://bestpractice.bmj.com/topics/en-gb/737>
2. Oelsner G, Shashar D. Adnexal torsion. Clin Obstet Gynecol. 2006;49(3):459–63.
3. Oelsner G et al. Long-term follow-up of the twisted ischaemic adnexa managed conservatively. Hum Reprod. 2003;18(11):2320–3.