

Ovarian Torsion: A Retrospective Audit of Clinical Management and Outcomes

Dr Toluwase. A.¹, Dr Koota.M.¹, Ms Mahmud.A¹.



BACKGROUND

Ovarian torsion is a surgical emergency, accounting for 2.7% to 7.4% of all gynaecological emergencies. Prompt diagnosis and immediate surgical intervention are crucial to preserve ovarian function and fertility. Due to its non-specific symptoms, diagnosis is often challenging and requires a high index of suspicion. National guidelines, including the NCEPOD classification, recommend immediate intervention. However, current management practices are often suboptimal due to the absence of standardized protocols. To address this, an audit was conducted to assess how ovarian torsion is diagnosed and managed in comparison to national guidelines.

METHODS

A retrospective audit of all confirmed cases of ovarian torsion from January 2021 to September 2024. Forty-three patients were found eligible and included in the audit. Data was collected through the hospital coding system, electronic patient notes(iportal) and analysed using google forms. Patients' symptom timeline, scan timeline, category of urgency, and histology results were analysed quantitatively. Gynaecologist clinical decision making, management delays and areas of improvement were analysed qualitatively.

RESULTS

- 67% premenopausal, 16% perimenopausal and 16% postmenopausal
- 35% Nulliparous
- 21% known ovarian cyst
- 9 patients had cyst size >5cm and on waiting list for surgery
- 67% of the patients had recurrent abdominal pain
- 63% direct referral to Gynaecology, 21% under the care of surgeon , 4.7% in urology, 9.7% in children assessment unit and 2.3% under care in acute internal medicine
- Only a small percentage had fever at presentation
- 30% presented with vomiting
- Blood tests showed 58.2% of the patients had leucocytosis >11,000, while 27.9% had raised CRP.
- Around half of the patients had tumor markers

	< 6 hrs	6 – 12 hrs	13– 24 hrs	>24 hrs	>48hrs	>72hrs
Hospital Admission to Gynae Referral	34.9 %	23.3%	18.6%	23.3%	0	0
Hospital Admission to Theatre	9.3%	9.3%	25.6%	11.6%	4.7%	39.5%

Table 1: Timeline from Hospital admission

	< 6 hrs	6 – 12 hrs	13– 24 hrs	>24 hrs	>48hrs	>72hrs
Time of admission to Scan results	16.2 %	27 %	32.4 %	24.3 %	0	0
Scan results to theatre	37.8 %	5.5 %	10.8 %	45.9 %	0	0

Table 2: Scan Timeline

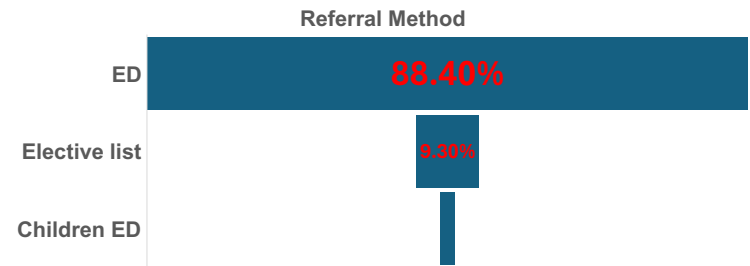


Figure 1 : Method of referral

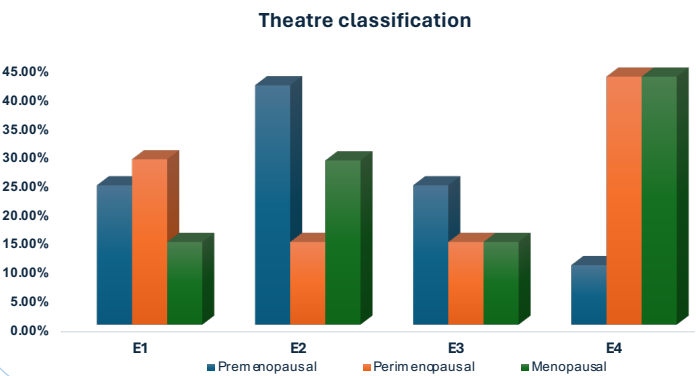


Figure 2 : Theatre classification

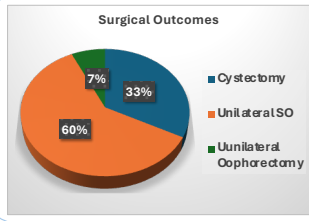


Figure 3: Outcome of surgery

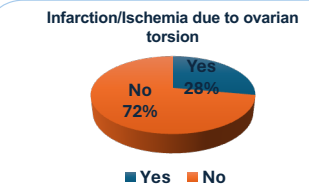


Figure 4: Ovarian ischemia cases

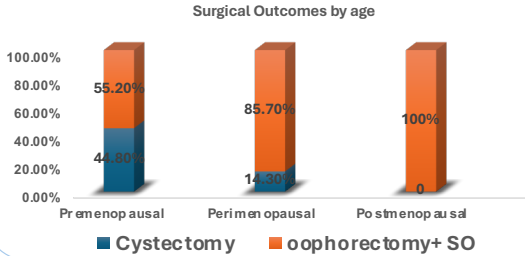


Figure 5: Outcome of surgery by age

Histological analysis showed that 16.3% of patients had isolated ovarian torsion without any underlying pathology, with 87.5% of these being premenopausal. Other findings included:

- 20.9% Benign serous cystadenoma
- 23.3% Teratomas
- 4.7% Endometriomas
- 4.7% Borderline mucinous tumors
- A variety of other benign ovarian tumors also observed.

CONCLUSION

The audit revealed substantial delays and inconsistencies in the management of ovarian torsion:

- Delayed imaging and surgical intervention
- Under-recognition of surgical urgency
- High oophorectomy rates, especially among premenopausal women

RECOMMENDATIONS

- Patients with suspected ovarian torsion should be categorized as E1
- Create clear, evidence-based protocols for the diagnosis and treatment of ovarian torsion.
- Implement a system to prioritize urgent imaging for suspected ovarian torsion cases to reduce diagnostic delays.
- Design a structured triage system to help emergency staff quickly identify and prioritise suspected cases appropriately.
- Run six dedicated benign ovarian cyst lists annually (up to four cystectomies per list) to proactively manage cases and reduce emergency admissions, improving patient outcomes and preserving ovarian function.
- Reaudit in 12 months

REFERENCES

Damigos E, Johns J, Ross J. An update on the diagnosis and management of ovarian torsion. The Obstetrician & Gynaecologist 2012;14:229–36.
Moro F, Bolomini G, Sibal M, et al. Imaging in gynecological disease (20): clinical and ultrasound characteristics of adnexal torsion. Ultrasound Obstet Gynecol. 2020 Dec;56(6):934-43.