



Time to theatre for ovarian torsion: A retrospective audit.

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Introduction

- Ovarian torsion is a surgical emergency where an ovary rotates along the ligaments supporting it, leading to partial or complete obstruction of blood supply to the ovary (1).
- Timely diagnosis is essential to avoid serious complications including infarction, oophorectomy, and loss of ovarian function (2, 3).
- A systematic review revealed a median time from presentation to surgical intervention of more than 101 hours (4).

Objectives

- To examine time to theatre for emergency diagnostic laparoscopies for suspected ovarian torsion.
- The overarching aim is to reduce cases of missed ovarian torsion, and improve rates of ovarian preservation.

Methodology

- Retrospective observational study.
- 6 month study period (01 Oct 2022 to 31 March 2023)
- Female patients undergoing emergency gynaecology laparoscopy identified.
- Data collection from iEMR regarding patient demographics, clinical features, investigations, intraoperative and surgical details.
- Data was analysed using simple descriptive statistics.

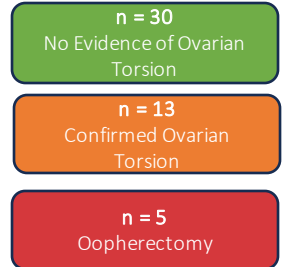
Results

129 diagnostic laparoscopies were performed during the study period. Of these, the clinical suspicion was:

- **43: possible ovarian torsion**
- **20:** ovarian cyst without concern for torsion
- **44:** ectopic pregnancy
- **11:** persistent pain without clear cause
- **5:** tuboovarian abscess/pelvic inflammatory disease
- **2:** concern for uterine perforation
- **3:** other post operative complication
- **1:** cancelled elective procedure

Results continued

- Of the 43 patients with a concern for ovarian torsion:
- 5 required an oophorectomy for ovarian torsion.
- Table 1 demonstrates the mean time to theatre and gynaecology referral for these cases from triage in the emergency department (ED).



Discussion & Conclusions

- 13 patients had confirmed ovarian torsion, 5 of whom required oophorectomy.
- Of the patients requiring oophorectomy, there was a mean time from initial presentation to theatre of **25.30 hours**.
- While the differences in time in Table 1 are not statistically significant (likely due to the relatively small sample size), ovarian torsion and oophorectomy is of clinical significance.
- This highlights the importance of improving hospital protocols (in both the emergency and gynaecology departments) to reduce time to theatre to avoid these serious complications.

References:

- 1: Bridwell RE, Koyfman A, Long B. High risk and low prevalence diseases: Ovarian torsion. The American Journal of Emergency Medicine. 2022 Mar 31.
- 2: Sasaki KJ, Miller CE. Adnexal torsion: review of the literature. Journal of minimally invasive gynecology. 2014 Mar 1;21(2):196-202
- 3: Wattar B, Rimmer M, Rogozinska E, Macmillan M, Khan KS, Al Wattar BH. Accuracy of imaging modalities for adnexal torsion: a systematic review and meta-analysis. BJOG: An International Journal of Obstetrics & Gynaecology. 2021 Jan;128(1):37-44.
- 4: Gasser CR, Gehri M, Joseph JM, Pauchard JY. Is it ovarian torsion? A systematic literature review and evaluation of prediction signs. Pediatric emergency care. 2016 Apr 1;32(4):256-61.

Table 1: Time to theatre and gynae referral for patients with suspected ovarian torsion.

Outcome	Number of Patients	Average Time (hours)			
		ED triage to theatre	ED triage to gynae referral	Gynae referral to theatre	Gynae review to theatre
Torsion	13/43	15.75	4.92	14.22	12.58
No torsion	30/43	19.13	5.30	10.45	8.96
		t value = 0.593 (p=0.278)	t value = -0.264 (p=0.397)	t value = 0.705 (p=0.242)	t value = 0.718 (p=0.238)
Oophorectomy for torsion	5/43	25.30	7.25	18.03	16.67
No oophorectomy	38/43	17.16	4.75	12.42	10.80
		t value = -1.00 (p=0.162)	t value = -1.244 (p=0.110)	t value = -0.735 (p=0.233)	t value = -0.815 (p=0.210)