

Retrospective Audit of the Management of Ovarian Torsion in a Tertiary Hospital Over a Decade

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Introduction:

Management of ovarian torsion ranges from de-torsion to oophorectomy and is dependent on various factors [1]. Oophorectomy can have significant implications for fertility and general health, thus requires careful consideration [2]. This study reviewed the management of ovarian torsion at a tertiary hospital over a 10 year period.

Methods:

- Patients who underwent surgical management for acute ovarian torsion at a tertiary hospital in Victoria, Australia, were reviewed, from January 2008 to June 2018
- We reported rates and predictors of oophorectomy and ovarian ischaemia and current practices in oophorectomy.

Results:

- 159 patients were included.
- The rate of oophorectomy was 47% and did not change significantly over the 10 year timeframe when stratified annually (p=0.31).
- Only age (aOR 1.1, 95% CI 1.04, 1.16) and transfer from another hospital (aOR 2.33, 95% CI 0.99, 5.47) were significant factors for predicting oophorectomy in multivariate analysis.
- Although nulliparity was significantly lower in the oophorectomy group, it was not a significant predictor for oophorectomy after adjustment.
- Of those with oophorectomy, 57% had partial or complete ischaemia confirmed histologically.
- On modelling for prediction of ischaemia on histology, the 3 factors retained in the model were CRP, adnexal size and transfer from another hospital.
- Of the patients who had ovarian preservation, 24% had an oophorectomy. The site and suture material used during oophorectomy varied between cases.

Discussion:

- The oophorectomy rate of 47% in this audit is comparable to reported rates in current literature which varies from 35% to 80% [3, 4, 5].
- With increasing evidence to support ongoing ovarian function even in cases where ischaemia is histologically confirmed, this rate could be lowered further [6, 7].
- Future research should focus on evaluation of ovarian function after conservative management and methods to prevent recurrent torsion including the different methods of oophorectomy.

References

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Variable	Oophorectomy (N=75)	Ovarian preservation (N=84)	p-value
Age, mean (SD) N=159	36 (11)	30 (7)	<0.001
Nulliparity, % (n), N=159	55% (41)	74% (62)	0.013
White cell count, 10 ⁹ /L, mean (SD) N=155	11.7 (4)	10.3 (3)	0.014
Ovary size in mm, mean (SD) N=94	83 (37)	70 (24)	0.044
Transfer from other hospital, % (n), N=159	57% (43)	37% (31)	0.011
Time from presentation to surgery in hours, mean (SD) N=153	24 (27)	12 (11)	<0.001
Operation time in minutes, mean (SD) N=159	81 (30)	59 (23)	<0.001
Oophorectomy performed, % (n), N=159			0.004
None	95% (71)	76% (64)	
Unilateral	5% (4)	19% (16)	
Bilateral	0% (0)	5% (4)	
Consultant present, n (%) N=159	93% (70)	98% (82)	0.256
Consultant RANZCOG/AGES Level N=152*			0.239
Level 3	3% (2)	0% (0)	
Level 4	17% (12)	26% (21)	
Level 5	34% (24)	37% (30)	
Level 6	46% (32)	38% (31)	

*unknown RANZCOG/AGES level for 7 consultants
Total number for each variable varied due to missing data

