



Ureteric Injury at Hysterectomy:

a Retrospective Review of Patient and Operative Factors that may contribute to risk

Sloss S¹, Ellett L¹, Readman E¹, Mooney S¹

¹ Mercy Hospital for Women (MHW), Heidelberg, VIC



INTRODUCTION

Ureteric injury is a recognised complication of gynaecological surgery and is associated with significant patient morbidity. The reported rate of ureteric injury at hysterectomy ranges from 0.3 to 1.8%^{1,2}. The aims of this review were to determine our local incidence of ureteric injury and to examine each case for factors that may make injury more likely.

METHODS

A retrospective review of all hysterectomies at MHW between January 2010 – April 2020 was performed. Cases of ureteric injury were identified using Medicare Benefits Schedule codes for relevant diagnoses and related surgical treatment. The clinical records of each case of injury were subsequently reviewed and descriptive statistics performed.

RESULTS

4,044 hysterectomies were performed at MHW in the study period; 2,008 (50%) abdominal, 1,050 (26%) laparoscopic and 986 (24%) vaginal hysterectomies. A total of 17 (0.42%) cases of ureteric injury were identified (Figure 1 and Table 1).

- Teeluckdharry et al. Urinary Tract Injury at Benign Gynecologic Surgery and the Role of Cystoscopy: A Systematic Review and Meta-analysis. *Obstet Gynecol.* 2015;126(6):1161-1169.
- Ibeanu et al. Urinary tract injury during hysterectomy based on universal cystoscopy. *Obstet Gynecol.* 2009;113(1):6-10.

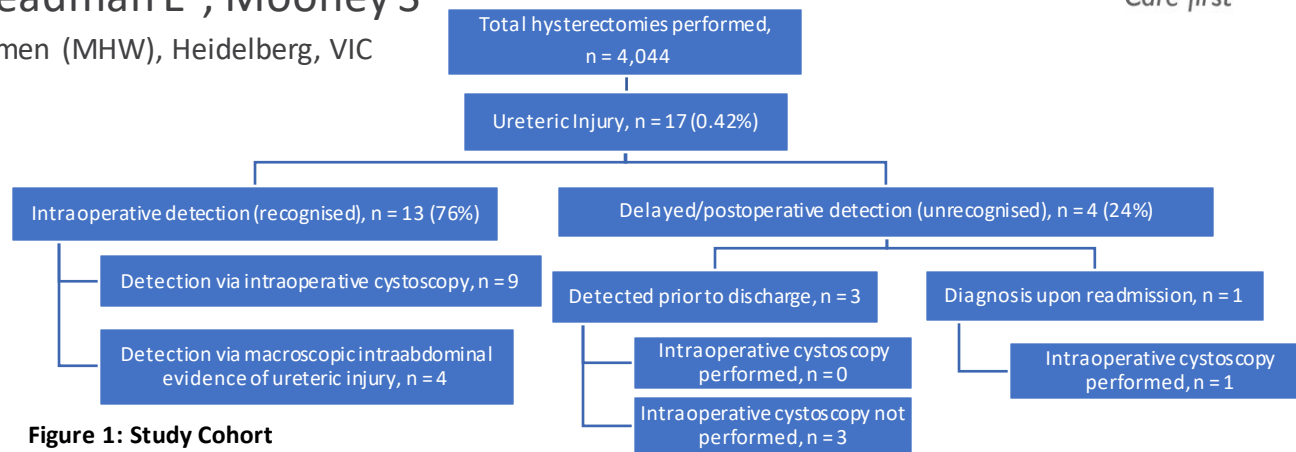


Figure 1: Study Cohort

Table 1: Patient & Operative Factors

Age (years), mean (SD)	BMI, mean (SD)	Indication for Hysterectomy, n (%)	Hysterectomy Modality, n (%)	Specimen weight (g), Median (IQR)	Fibroid(s) present* (%)	Endometriosis* (%)	Adenomyosis* (%)
46 (12)	29 (8)	Endometriosis 5 (29%) Fibroids 5 (29%) Malignancy 2 (12%) AUB 2 (12%) Obstetric 2 (12%) POP 1 (6%)	Abdominal 10 (0.5%) Laparoscopic 6 (0.6%) Vaginal 1 (0.1%)	396 (585)	12 (71%)	7 (41%)	2 (12%)

SD: standard deviation, IQR: interquartile range, AUB: abnormal uterine bleeding, POP: pelvic organ prolapse

*Present on histopathology

DISCUSSION

The rate of ureteric injury during hysterectomy performed at MHW is low and consistent with other reports. Delayed detection occurred in a minority of cases. Ureteric injury appeared associated with abnormalities in pelvic anatomy and occurred across each hysterectomy modality. This study is limited by the accuracy of the data set coding.