

Patient and perioperative factors impacting voiding success with early transurethral catheter removal after robotic sacrocolpopexy

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BACKGROUND

Pelvic organ prolapse affects 26% of women annually.¹ The prevalence of transient voiding dysfunction (TVD) after minimally invasive apical prolapse repair varies in the literature from 13-35%.² Early identification of voiding dysfunction is crucial in preventing bladder over distention and long-term voiding dysfunction. No significant predictors of TVD have been associated with catheter removal after robotic assisted laparoscopic sacrocolpopexy (RALS) on postoperative day (POD) one, and no risk factors have been examined with early catheter removal on POD zero. Studies have demonstrated the benefits of same day discharge after minimally invasive gynecologic and pelvic reconstructive surgery, including safety and cost effectiveness. Concomitant anterior repair and midurethral sling have been identified as factors for TVD on with transurethral catheter removal on POD one after apical repair.

AIMS

This study aims to examine patient and perioperative factors impacting voiding success with early transurethral catheter removal on POD zero, after RALS.

METHODS

This is a retrospective study of women who underwent RALS, discharged on POD day zero, at a single institution from 2018-2020. IRB approval was obtained, data was collected from electronic medical records, and univariable logistic regression models were used to identify patient characteristics and perioperative factors that may be associated with voiding dysfunction.

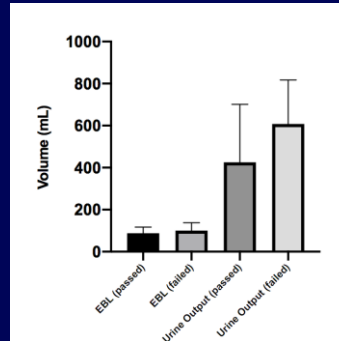


Figure 1. Intraoperative outputs

	Passed Voiding Trial n=8	Failed Voiding Trial n=10	p
Age	59.1 ±3.8	58.8 ±10.4	0.93
ASA	2.25 ±0.7	2.4 ±0.7	0.66
BMI	30.5 ±4.2	27.9 ±4.1	0.22
Chronic pain	1 (12.5%)	1 (10.0%)	0.87
Coronary Artery Disease	4 (50%)	4 (40.0%)	0.6
Hypertension	3 (37.5%)	5 (50.0%)	0.6
Diabetes Mellitus	1 (12.5%)	3 (30.0%)	0.37
Former smoker	3 (37.5%)	3 (30.0%)	0.74
Current smoker	0 (0%)	1 (10%)	0.39
Prior Hysterectomy	2 (25.0%)	3 (30.0%)	0.81
<u>Anterior Prolapse</u>			
Aa	2.5 ±1.1	1.85 ±1.2	0.25
Ba	4.13 ±2.1	2.75 ±2.6	0.24

Values are presented as number (%) or mean ±SD; p<.05 considered significant; American Society of Anesthesiologists (ASA) physical status classification; Body Mass Index (BMI)

Table 1. Preoperative factors impacting voiding trial success

RESULTS

Eighteen women were included in analysis. Eight women (44%) passed their voiding trial and 10 women (55%) experienced TVD with a failed voiding trial. Univariate analysis demonstrated no significant difference in patient characteristics, intraoperative procedures, surgical history, intraoperative fluid intake, urine output and blood loss, and total procedure times between the two groups (table 1). No significant difference was found in the degree of anterior prolapse.

Intraoperative estimated blood loss was not found to be statistically significant (p=0.57), 100 ±52mL in the TVD group, compared to 87 ±35mL in the group without voiding dysfunction (figure 1). Concomitant intraoperative retropubic sling placement and intraoperative hysterectomy were not found to be significant factors, 4 (40%, p=0.20) and 5 (45%, p=0.28), respectively.

CONCLUSIONS

No patient or perioperative factors were found to significantly impact voiding success with early transurethral catheter removal on POD zero, after RALS. Sample size was a major limiting factor. Additional studies are warranted.

References

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