

A lower bladder capacity on urodynamic study is significantly associated with the occurrence of Persistent post-operative urgency in women following native tissue repair for advanced Pelvic organ prolapse

**Background:** Pelvic organ prolapse (POP) is often associated with urinary urgency (UU), which may persist even after surgical repair (PPOU) and significantly impacts quality of life. Pre-operative detrusor overactivity (DO), characterized by involuntary detrusor contractions on urodynamic study (UDS), may predict PPOU. While DO timing and amplitude along with additional UDS parameters were found to be predictive in men with prostatectomy for PPOU no study has examined this in women following POP surgery.

This study examines whether preoperative urodynamic parameters and detrusor overactivity characteristics predict persistent post-operative urgency, 12 months after vaginal native tissue repair for advanced POP.

**Methods:** Retrospective cohort study. Data was extracted from Electronic medical records of patients who underwent POP surgery with hysterectomy, SSLF for apical suspension and anterior colporrhaphy

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**Results:**

Variable	Persistent OAB (40)	OAB Resolution (21)	P-value
DO Amplitude (median, IQR)	40 (18-55-66.65)	49.25 (24.9-68.55)	0.54
DO Timing (median, IQR)	170 (71.8-283)	196 (70.4-337)	0.40
Terminal DO (n, %)	7 (17.5)	3 (14.2)	1.00
DO Leakage (n, %)	16 (40)	9 (42.8)	1.00
Low Compliance (n, %)	8 (20)	5 (23.8)	0.75
Bladder Capacity (ml) (median, IQR)	408 (327-461)	416 (380-606)	0.04
Q Max (median, IQR)	12.75 (7-19.7)	14.7 (9.2-18.8)	0.90
Pdet Qmax (median, IQR)	30.6 (18.5-49)	34 (20-56.6)	0.38
Residual Volume (ml) (median, IQR)	28.5 (0-165)	52 (0-150)	0.71

**Implications:** lower bladder capacity may serve as a critical predictor premer for Persistent post-operative urgency in women following native tissue repair for advanced Pelvic organ prolapse

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