

Abstract no.: FP. 2-9

Predictors of Safety and Efficacy Outcomes in Prostatic Urethral Lift (PUL) for Benign Prostatic Hyperplasia (BPH)

Jeremy M.H. Ho¹, Brian W.H. Siu¹, Crystal H.L. Chan¹, Ryan W.Y. Yuen¹, Justin Y.T. Leung¹, Yvonne Y.Y. Chan¹, Athena Y.H. Lee¹, Janice H.C. Wong¹, Chris H.M. Wong¹, Alex Q. Liu¹, David K.W. Leung¹, Steffi K.K. Yuen¹, Chi Hang Yee¹, Jeremy Y.C. Teoh¹, Peter K.F. Chiu¹, Chi Fai Ng¹, Ka Lun Lo¹

¹ SH Ho Urology Centre, Department of Surgery, The Chinese University of Hong Kong, Hong Kong, China

Objective

To investigate predictors of safety and efficacy in Prostatic Urethral Lift (PUL) for BPH, including TPV (number of tabs per unit prostate volume) and number of PUL tabs

Patients and Methods

This was a prospective study on PUL for BPH patients. PUL was performed using the UroLift® System under local anaesthesia. Safety and efficacy outcomes of interest are 3-month IPSS, 3-month Qmax and 30-day readmission respectively. Predictors of PUL outcomes (including age, preoperative prostate size, ASA and TPV) were analysed by multivariable logistic regression. Outcomes between those with <6 tabs and ≥6 tabs were compared with Student's t-test.

Results

164 patients undergoing PUL were recruited from 2023 to 2025. TPV (p=0.006) and preoperative prostate size (p=0.004) are significant predictors for 3-month IPSS. TPV may not translate to significant improvement in Qmax (p=0.480). Age (p=0.005) is a predictor of 3-month Qmax while preoperative prostate volume (p=0.464) and TPV (p=0.480) are not. Number of urolift tabs predicts 30-days readmission (p=0.046). The 30-day readmission rates were significantly higher in those receiving ≥6 tabs compared to <6 tabs (15% vs 5%, p=0.038) but IPSS (p=0.907) and Qmax (p=0.621) showed no significant difference between these two groups.

Conclusion

Increasing number of PUL tabs and TPV may lead to better symptom control but also carries higher risk of readmissions and complications, especially when the number of tabs is greater or equal to 6.

Table 1: Multivariable logistic regression of predictors for 3-month IPSS

Variable	Coefficient (95% CI)	P value
Age	0.078 (-0.042 to 0.199)	0.198
Preoperative prostate size	-0.086 (-0.144 to -0.028)	0.004
ASA	0.888 (-0.507 to 2.282)	0.210
TPV	-45.988 (-78.556 to -13.419)	0.006

Table 2: Comparison between <6 tabs vs ≥6 tabs

Outcome	Number of urolift tabs	Mean	Standard Deviation	P value (95% CI)
30-day readmission	<6 tabs	0.05 (5%)	0.216	0.038 (-0.190 to -0.005)
	≥6 tabs	0.15 (15%)	0.358	
3-month IPSS	<6 tabs	7.28	4.991	0.907 (-1.802 to 2.027)
	≥6 tabs	7.17	4.611	
3-month Qmax	<6 tabs	11.780	5.4585	0.621 (-2.7820 to 1.6677)
	≥6 tabs	12.337	6.4465	