The clinical effect of TURP in patients with detrusor underactivity:a short-term follow-up

Tao Wang, Weiyu Zhang, Hao Hu,

Huanrui Wang, Kexin Xu*

www.ics-eus.org/2025/abstract/26296

Aims of study

Detrusor hypoactivity (DU) is defined as a decrease in bladder contractility and a shortened duration of contraction observed in pressure flow studies, resulting in slow urination or inability to completely empty the bladder bladder within the usual time frame(1).

DU is an important cause of lower urinary tract symptoms (LUTS), and is often accompanied by benign prostatic outlet obstruction (BPO). Transurethral prostatectomy (TURP), as an important surgical method for treating BPO, has a definite therapeutic effect on patients with simple BPO, but there is still controversy over its efficacy for patients with concomitant DU(2,3).

By retrospectively analyzing patients who underwent TURP treatment, the study aims to investigate the effect of transurethral prostatectomy on patients with DU.

Study design and methods

Study Design:

• Inclusion: From January 2015 to January 2019, 72 male who underwent TURP treatment were retrospectively analyzed.

• Urodynamic stratification:

- DU group: bladder contraction index (BCI) < 100 & Maximum flow rate - detrusor pressure($P_{detQmax}$) ≤ 40 cmH_2O (n=31)

→ Subgroup A: $P_{detQmax}$ ≤ 20 cmH_2O (n=9)

→ Subgroup B: 20 < $P_{detQmax}$ ≤40 cmH_2O (n=22)

- Non-DU group (Control): BCI ≥ 100 & 40 < $P_{detQmax}$ ≤ 60 cmH_2O (n=41)

• General information comparison between the three groups is shown in Table 1.

	Group A	Group B	Group C	P-value
Number	9	22	41	
Year	73(63 ~ 75)	72(58 ~ 82)	71(51 ~ 89)	>0.05
Duration of illness	4(3 ~ 6)	5(2 ~ 7)	4(2 ~ 7)	>0.05
IPSS	26.40 ±5.54	21.04 ±4.61	18.53 ±4.41	<0.001
QOL	4.70 ±1.34	3.37 ±1.11	3.49 ±1.34	0.016
PVR(ml)	152.90 ±75.26	90.78 ±51.97	53.23 ±38.98	<0.001
Q_{max} (ml/s)	4.60 ±2.63	8.48 ±2.47	11.38 ±4.00	<0.001

Table 1

Methods:

All 72 cases underwent TURP. Postoperative evaluation of the therapeutic effect of TURP on DU was performed using IPSS, QOL, free Q_{max} (fQ_{max}), and PVR. IPSS and QOL were subjective efficacy evaluation indicators, while fQ_{max} and PVR were objective efficacy evaluation indicators.

Results

Compared with preoperative results, there was a statistically significant difference in QOL (P<0.05) in Group A, while IPSS, fQ_{max}, and PVR improved, but the differences were not statistically significant (P>0.05); The IPSS, QOL, fQ_{max}, and PVR of Group B and Group C were significantly improved compared to preoperative levels, and the differences were statistically significant. (Table 2)

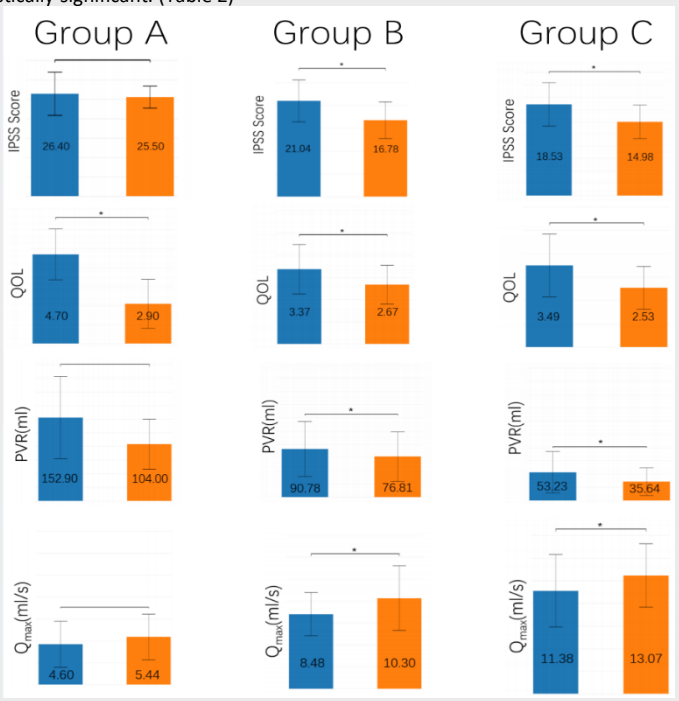

Table 2 Pre-opration Post-operation

Conclusions

The subjective and objective indicators of DU patients can be improved after TURP, while for those patients whose $P_{detQmax}$ ≤ 20 cmH_2O , only QOL can be improved significantly, and the other indicators can not be improved. Therefore, adequate communication should be made before surgery to inform reasonable expectations for the DU patients.

References

1. Abrams P, Cardozo L , Fall M ,et al. The standardisation of terminology of lower urinary tract function: report from the Standardisation Sub-committee of the International Continence Society[J]. Neurourol Urodyn, 2002, 21: 167-178. DOI :10. 1067/mob. 2002. 125704.

2. Jeong SJ, Kim HJ, Lee YJ, et al. Prevalence and clinical features of detrusor underactivity among elderly with lower urinary tract symptoms: a comparison between men and women[J] . Korean J Urol , 2012 , 53:342-348 . DOI : 10 . 4111 /kju . 2012 . 53 . 5 . 342 .

3. Ou R, Pan C, Chen H, et al. Urodynamically diagnosed detrusor hypocontractility: should transurethral resection of the prostate be contraindicated? [J]. Int Urol Nephrol, 2012 , 44:35-39. DOI: 10. 1007/s11255-011-0010-2