

**Abstract Reproduction Form B-1**

Author(s):	O.Ukimura, M.Kojima, Y.Naya, A.Ochiai, E.Inui, T.Miki
	Double Spacing
Institution	Department of Urology
City	Kyoto Prefectural University of Medicine, Kyoto, JAPAN
Country	Double Spacing
Title (type in CAPITAL LETTERS)	LIMITED VALUE OF ALPHA-BLOCKER MEDICATION FOR BPH IN TERMS OF RELEASING THE INFRAVESICAL OBSTRUCTION

AIMS OF STUDY

To evaluate the infravesical obstruction in men with lower urinary tract symptom (LUTS), pressure-flow study (PFS) has been the gold standard. However, there are limitations in performing such an invasive test for all patients who need objective evaluation of individual therapeutic effects to the obstruction in clinical settings.

We have reported that the ultrasound estimated bladder weight (UEBW) could be used as a reliable non-invasive measure representing bladder hypertrophy (1). Bladder hypertrophy due to benign prostatic hypertrophy (BPH) is evidence of obstruction, and could be reduced by effective therapy for the release of the obstruction (2). Monitoring the change of bladder weight could be a non-invasive modality for evaluating the therapeutic effect. In addition, recently, we reported the measurement of the resistive index (RI) of the intraprostatic blood flow as a new urodynamic parameter in assessing BPH (3).

To determine the value of three months' medication using alpha-blocker in comparison with that of transurethral resection of the prostate (TUR-P), we monitored non-invasive parameters including both UEBW and RI.

METHODS

In 1998, 38 untreated new patients with moderate to severe symptomatic BPH underwent TUR-P (n=23, age 72±8, 17±7 gm resected) or medication using Alp-b (n=15, age 70±4, 0.2 mg tamsulosin) in our clinic. Both pre-treatment IPSS scores (19±7 in TUR-P vs. 17±6 in Alp-b) as well as prostatic volume (46±10 in TUR-P vs. 47±9 in Alp-b) were not significantly different between these two groups. In each patient we evaluated all the clinical parameters including IPSS, Q_{max} (ml/sec), residual urine volume (RUV) (ml), UEBW (gm), and RI both



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before and three months after the medical therapies were administered. An UEBW value over 35 gm was defined as the threshold of the presence of infravesical obstruction, as previously reported (1,2).

RESULTS

After TUR-P, all of the parameters (IPSS, Qmax, RUV, UEBW, and RI) changed significantly ($p < 0.001$). In contrast, after Alp-b, the post-medication values of the UEBW, RUV, and RI did not significantly change from the pre-medication values, although both IPSS and Qmax improved significantly ($p < 0.05$).

In 7 men with obstruction out of the 15 in the Alp-b group, neither UEBW nor RI statistically changed (43.4 ± 5.7 to 37.9 ± 6.5 , and 0.715 ± 0.042 to 0.694 ± 0.035 , respectively); in contrast, both UEBW and RI decreased significantly ($p < 0.0001$) (49.8 ± 19.5 to 30.5 ± 7.1 , and 0.735 ± 0.047 to 0.644 ± 0.029 , respectively) in 16 men with obstruction out of the 23 in the TUR-P group.

		TUR-P (n=23)		Alp-b (n=15)	
IPSS	pre-	19 \pm 7		17 \pm 6	
	post	6 \pm 3	$p < 0.001$	12 \pm 6	$p < 0.05$
Qmax	pre-	5.4 \pm 2.7		8.8 \pm 4.4	
	post-	15.9 \pm 5.8	$p < 0.0001$	12.6 \pm 5.3	$p < 0.05$
UEBW	pre-	45.1 \pm 18.6		34.9 \pm 9.8	
	post-	29.5 \pm 6.7	$p < 0.0001$	32.7 \pm 7.8	n.s.
RUV	pre-	180 \pm 189		29 \pm 36	
	post-	12 \pm 18	$p < 0.0001$	17 \pm 18	n.s.
RI	pre-	0.741 \pm 0.048		0.705 \pm 0.058	
	post-	0.647 \pm 0.028	$p < 0.0001$	0.698 \pm 0.047	n.s.

CONCLUSIONS

In comparison with the medical value of TUR-P which can release infravesical obstruction, alpha-blocker medication for BPH has limitations in this respect as shown by the high values of bladder weight as well as intraprostatic pressure.

REFERENCES

1. J Urol 157 : 476, 1997.
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