

EFFECTS OF BLADDER TRABECULATION GRADE ON THE RESULT AFTER TRANSURETHRAL RESECTION OF THE PROSTATE

Hypothesis / aims of study

Lower urinary tract symptoms are results of many factors. Bladder outlet obstruction induced by benign prostatic hypertrophy(BPH) contributes to form the bladder trabeculation affecting smooth muscle hypertrophy, fibrosis. This study was designed to find out the effects of bladder trabeculation grade on the outcome after the transurethral resection of the prostate(TURP).

Study design, materials and methods

Subjects were 101 patients who had TURP carried out by one surgeon from January, 2005 to April, 2008. As preoperative factors-age, bladder trabeculation grade, prostate volume, prostate specific antigen(PSA), maximal urine flow rate(urine Qmax), residual urine volume, and International Prostate Symptom Score(IPSS) were evaluated. Bladder trabeculation grade are classified by 4 levels referring to the established bladder trabeculation grade classification method. By each grade, the preoperative factors were comparatively analyzed. Every patients' preoperative factors were evaluated through over an year follow up.

Results

When the patients were classified to the 4 categories by the bladder trabeculation grade and each category was compared, there was no difference of averages of age, prostate volume. Average PSA score made a significant difference in level 0 to 2, level 1 to 2, level 2 to 3. Average urine Qmax also showed the significant difference only in level 0 to 3. Preoperative IPSS score had no relation to the bladder trabeculation grade, and post-operative IPSS by bladder trabeculation grade made a difference of total symptom score in level 2 to 3 storage score in level 2 to 3 obstruction score in level 0 to 1 and urgency score in level 2 to 3(table).

comparison of bladder trabeculation grade	p-value					
	0 vs. 1	0 vs. 2	0 vs. 3	1 vs. 2	1 vs. 3	2 vs. 3
age	0.338	0.947	0.154	0.407	0.266	0.188
prostate volume(ml)	0.596	0.566	0.782	0.708	0.474	0.525
PSA(ng/ml)	0.652	0.017 ⁺	0.081	0.004 [†]	0.207	0.009 [‡]
urine Qmax(ml/s)	0.339	0.696	0.042 [*]	0.752	0.108	0.061
residual urine volume(ml)	0.142	0.444	0.465	0.890	0.957	0.905

bladder trabeculation grade;0-none, 1-slight to moderate, 2-severe, 3-severe with diverticulum.

+ , †, ‡, * p-value<0.05

Interpretation of results

Bladder trabeculation grade observed when the TURP was carried out on patients with BPH affected IPSS score after TURP, and in case of the level 3 that trabeculation was made the significant difference in storage score, especially urgency score.

Concluding message

Conforming bladder trabeculation grade before TURP will be helpful to predict the improvement from voiding symptom and medication planning after surgery.

Specify source of funding or grant	NOT
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Ilsanpaik Hospital Ethics Committee
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	No