

## THE FINDINGS OF POSTOPERATIVE FOLLOW UP TRANSRECTAL ULTRASONOGRAPHY AFTER TRANSURETHRAL RESECTION OF PROSTATE

### Hypothesis / aims of study

Follow-ups of transurethral resection of prostate (TURP) has been generally limited to uroflowmetry and symptom score. There is no sufficient data regarding the shape of prostate resection space after TURP. The aims of this study are to evaluate the postoperative findings of transrectal ultrasonography (TRUS) and to know whether those are same as operative endoscopic findings of the end stage of TURP.

### Study design, materials and methods

This study included 72 symptomatic patients who had undergone TURP because of severe low urinary tract symptom and prostate enlargement (>60ml). All TURP was performed by one right handed surgeon. All patients were taken TRUS after 3 months of TURP and all DVD records of TURP were reviewed. Patients were grouped by postoperative axial image of TRUS; group 1, widely opened prostatic resection space ( $\geq 5$ mm) with no remnant tissue: group 2, widely opened prostatic resection space with measurable remnant tissue: group 3, narrowly opened prostatic resection space (<5mm) with remnant tissue.

### Results

Total prostate volume and resection rate were  $79.2 \pm 20.0$  ml and  $0.35 \pm 0.14$  gm/min, respectively. While 27 patients were classified as group 1 and 30 patients as group 2, the remaining 15 patients showed finding of group 3. Preoperative uroflow and degree of bladder outlet obstruction were comparable among 3 groups. In group 2, most of remnant tissues were located at the lateral aspect of prostate resection space (24/30) and some were around verumontanum (6/30). Remnant tissues were more frequently noted in the left side. The end stage endoscopic finding couldn't exactly predict the presence and the site of remnant tissue of TRUS ( $p=0.335$ ). Improvement of Qmax was not significantly different between group 1 and group 2. Improvement of Qmax was lowest in group 3 ( $p=0.036$ )

	Group 1 (n=27)	Group 2 (n=30)	Group 3 (n=15)	p	<u>Interpretation of results</u>
Preoperative					There is possibility of remaining some hyperplastic tissues at the end of surgery in patients with big BPH. And only with endoscopic operative views, surgeon can't exactly measure the amount of remaining tissues in some instances. Also, incomplete resection can not guarantee satisfactory long-term postoperative results in patients with big BPH.
Qmax(ml/sec)	9.5	7.2	9.7	0.173	
Bladder contractility index	109.5	89.1	90.7	0.350	
Abrams-Griffiths number	58.9	59.9	55.8	0.864	
Postoperative					
Qmax(ml/sec)	17.6	17.1	13.5	0.036*	

instances. Also, incomplete resection can not guarantee satisfactory long-term postoperative results in patients with big BPH.

### Concluding message

Even though TURP is very effective surgical tool to remove big prostate in the patients with severe benign hyperplasia, there is possibility of remaining some tissues at the end of surgery. Endoscopic equipments can't exactly define the amount of remnant tissue in substantial cases, surgeons should check their resection skills and habits. Follow up TRUS after TURP can give help in this regards.

### References

1. Doo CK, Uh HS. Anatomic configuration of prostate obtained by noninvasive ultrasonography can predict clinical voiding parameters for determining BOO in men with LUTS. Urology. 2009 ;73(2):232-6

<b>Specify source of funding or grant</b>	No
<b>Is this a clinical trial?</b>	Yes
<b>Is this study registered in a public clinical trials registry?</b>	No
<b>What were the subjects in the study?</b>	HUMAN
<b>Was this study approved by an ethics committee?</b>	No
<b>This study did not require ethics committee approval because</b>	This study is retrospective and performed with medical records
<b>Was the Declaration of Helsinki followed?</b>	Yes
<b>Was informed consent obtained from the patients?</b>	No