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COMPARISON OF OUTPATIENT VERSUS INPATIENT TRANSURETHRAL PROSTATE RESECTION FOR BENIGN PROSTATIC HYPERPLASIA

Hypothesis / aims of study

To describe and compare the efficacy and safety of the outpatient transurethral resection in saline (TURIS-V) technique with inpatient transurethral resection of the prostate (TURP) for the management of benign prostatic hyperplasia (BPH).

Study design, materials and methods

The study enrolled patients that were in need of BPH surgery. Between January 2010 and June 2011, outpatient TURIS-V was performed in one center and the results of the treatment were compared with inpatient TURP performed in a separate hospital. Peri-operative data and any treatment complications were recorded. The analysis compared postoperative outcomes included a 6-month postoperative International Prostate Symptom Score (IPSS), a Quality of Life (QoL) evaluation and a record of any changes in uroflowmetry findings between the two groups.

Results

In the TURIS-V patient group, 69 out of the original 75 patients that were enrolled finished the study, and in the TURP group 71 out of 76 patients finished study. Both study groups were well matched for age, IPSS, QoL and uroflowmetry findings. The TURIS-V group experienced both shorter operation times (54.6 versus 74.8 minutes) and shorter catheterization times (4.2 versus 2.2 days) when compared to the TURP group. There were comparable improvements in the 6-month postoperative IPSS, QoL and uroflowmetry findings between the two groups. There were also equally low incidence rates of procedural complications.

Interpretation of results

Both TURIS-V and TURP relieve lower urinary tract symptoms in a similar manner, with great efficacy and safety. Overall, the TURIS-V procedure was found to have shorter operation and catheterization times compared to TURP. From these results it was determined that TURIS-V can be performed safely even in an outpatient environment.

Concluding message

TURIS-V can be efficiently performed as an outpatient operation, especially in regards to operation and catheterization time, and from these results it is reasonable to expect that TURIS-V could prove to be a valuable endoscopic treatment alternative procedure for BPH.

Table 1. Patient characteristics and operative parameters at baseline in the TURIS-V and TURP groups.

Parameters	TURIS-V (n=69)	TURP (n=71)	P-value
Operating time (min)	54.6 ± 13.8	74.8 ± 14.2 *	< 0.01
Reduced tissue weight (g)	25.7 ± 6.0	27.3 ± 8.9	0.21
Percentage of reduced tissue (%)	51.8 ± 17.2	53.1 ± 22.1	0.20
Operation efficiency (g/min)	0.47 ± 0.2 *	0.36 ± 0.1	0.01
Hemoglobin decrease (g/dL)	1.0 ± 0.3	1.1 ± 0.2	0.29
Catheterization time (days)	2.2 ± 0.8	4.2 ± 0.8 *	< 0.01
Complication rate (%)	3 (4.3%)	4 (5.6%)	0.45

Table 2. Six-month postoperative follow-up outcome comparisons between the TURIS-V and TURP groups.

Parameters	TURIS-V (n=69)			TURP (n=71)			Between groups
	Baseline	Follow up	Difference (%)	Baseline	Follow up	Difference (%)	P-value
IPSS score	21.4	8.6	12.8 (59.8)	21.1	7.8	13.3 (63.0)	0.77
QOL score	4.3	2.1	2.2 (51.2)	4.1	2.1	2.0 (48.8)	0.63
Qmax (ml/sec)	7.4	19.3	11.9 (160.8)	6.9	19.2	12.3 (178.2)	0.86
PVR (ml)	169.2	49.1	120.1 (70.9)	180.1	50.5	129.6 (72.0)	0.90

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Disclosures
Funding: None **Clinical Trial:** Yes **Registration Number:** ethical and research committee of Korea university Ansan hospital **RCT:** Yes **Subjects:** HUMAN **Ethics Committee:** ethical and research committee of Korea university Ansan hospital **Helsinki:** Yes **Informed Consent:** Yes