754

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HOLEP VS TURP, SIZE MATCHED COMPARISON STUDY

Hypothesis / aims of study

Although transurethral resection of prostate (TURP) is considered the standard surgical therapy for symptomatic BPH, the Holmium laser enucleation of prostate (HoLEP) is replacing the TURP. We compared TURP to HoLEP in sized matched maneuver.

Study design, materials and methods

We retrospectively reviewed the patients who went BPH surgery (TURP and HoLEP) at out institute performed by one surgeon. After Holmium laser surgery was started at out institute, all BPH surgery was underwent with Holmium laser. All patients were categorized into 3 groups (prostate of <40 gm – group 1, 40~79 gm – group 2, >80 gm – group 3) and 30 patients (TURP in 15 patients, HoLEP in 15 patients) in each groups were selected. Patient baseline characteristics, perioperative data and postoperative outcomes were compared. All complications were noted.

Results

No major intraoperative complications were encountered. The mean resected tissue weight was 6.2g, 16.8g, 32.1g for groups 1,2, and 3 in TURP and 8.7g, 23.3g, and 44.2g in HoLEP. The mean operation time was 51.8, 89.3, and 101.9 minutes in TURP and 83.6, 122.8, and 131.2 minutes in HoLEP. The mean hemoglobin loss was 0.2, 0.4 and 1.7g/dL in TURP and 0.8, 0.6, and 1.1g/dL in HoLEP. The median duration of Foley catheterization was 3.7 days in TURP group and 2.5 days in HoLEP group ($p<0.05$). The TURP and HoLEP resulted in an immediate and significant improvement of IPSS, peak urinary flow rates, ans postvoid residual urine volume but there was no statistical difference among groups. The rate of complications was also similar in all groups. Only 1 patient in each treatment modalities was required a postoperative blood transfusion.

Interpretation of results

Both HoLEP and TURP are effective for BPH treatment, regardless of the prostate size. And the perioperaive morbidity was also comparable.

Concluding message

HoLEP is safe and reliable method for treatment of the symptomatic BPH and could replace TUR-P.

Table 1. Perioperative data and postoperative outcomes of total patients

	TURP (n=45)	HoLEP (n=45)	p-value
Prostate volume	61.8±32.3	62.0±31.6	0.984*
Operative time	80.7±32.2	112.6±49.4	<0.05*
Enucleated tissue weight	17.3±10.8	24.2±15.9	<0.05*
Mean Hg decrease	0.6±1.1	0.6±0.9	0.950*
Duration of Foley catheterization	3.7±1.5	2.5±0.9	<0.05*
IPSS symptom improvement (storage)	3.1±4.1	3.3±5.3	0.843*
IPSS symptom improvement (voiding)	65±5.3	8.1±5.5	0.194*
Peak urinary flow rate improvement	6.0±5.9	8.6±5.8	<0.05*
Postvoid residual urine volume decrease	76.5±107.5	92.3±140.9	0.570*
Complications Grade I Grade II	 4 3	 0 3	0.086

* t-test ** chi-square test

Disclosures

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