

HOLEP IN OCTOGENARIANS: OUTCOMES AND SAFETY

Hypothesis / aims of study

To evaluate the efficacy and morbidity of HoLEP (Holmium laser enucleation of prostate) procedure in octogenarians with lower urinary tract symptoms (LUTs) suggestive of benign prostatic hyperplasia (BPH).

Study design, materials and methods

From May 2009 through May 2013, 89 octogenarians (16.5%) were described. A retrospective review using a prospectively maintained database was performed. The procedure was done by one surgeon. The preoperative and postoperative International Prostate Symptom Score (IPSS), maximum flow rate (Qmax), Quality of Life (QoL), International Index of Erectile Function (IIEF) and postvoid residual (PVR) urine volume were obtained preoperatively, at 3 months postoperatively.

Results

The mean age at time of procedure was 82.3±2.3 years (range 80-91 years), and mean prostate volume and mean PSA were 64.6±36.2 gm and 4.7±5.3 ng/ml, respectively. Indications for surgery were urinary retention 17 cases (19.1%), LUTs with bladder stone 13 cases (14.6%) and refractory LUTs 23 cases (25.8%). Operation time and enucleated tissue weight were 82.7±56.9 minutes and 32.2±29.7 gm, respectively. Preoperative and postoperative at 3 months, IPSS were 22.6±8.3 and 7.4±6.8 (p=0.028), QoL were 4.9±1.1 and 1.8±1.6 (p<0.001), respectively. IIEF was no significant changed (p=0.823). The mean Qmax increased from 7.6±4.2 to 13±8.4 ml/s and mean PVR decreased from 76.2±72.1 to 40.2±48.9 ml (p=0.01). Postoperative complications, without any perioperative deaths, de novo urethral stricture was reported in 3 patients (3.4%), urethral soundation was done. No more surgical treatment was required.

Table 1. Baseline characteristics of patients with BPH submitted to HoLEP

	n=89
Age, yr (SD)	82.3±2.3
Prostate size, TRUS, ml (SD)	64.6±36.2
PSA, ng/dl (SD)	4.7±5.3
ASA physical status (%)	
I. Healthy person	2 (2.2%)
II. Mild systemic disease	75 (84.3%)
III. Severe systemic disease	12 (13.5%)

Table 2. Operative and perioperative findings

Variable	n=89
Mean enucleation time, min	55.7±27.6
Mean morcellation time, min	15.9±24.8
Resection volume, g	31.2±29.7
Mean hospital stay, day	4.3±5.7
Mean catheter duration, hour	50±73.3

Table 3. Clinical outcomes of the HoLEP compare to preoperative and postoperative at 3 months

Variable	Baseline	3months	P-Value
International Prostate Symptom Score (IPSS)	22.6±8.3	7.4±6.8	0.023
Quality of life (QoL)	4.9±1.1	1.8±1.6	<0.001
Maximum flow rate (Qmax)	7.6±4.2	13±8.4	<0.001
Postvoid residual (PVR) volume	76.2±72.1	40.2±48.9	0.010
International Index of Erectile Function (IIEF)	3.3±4	3.2±5.7	0.079

Interpretation of results

Significant improvement was noted in Qmax, PVR, IPSS, and QoL at postoperative follow-up compared with baseline.

Concluding message

HoLEP is a safe and effective procedure for the treatment of symptomatic BPH, with low perioperative morbidity in old age patients.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** PNUH IRB (Pusan National University Hospital Institutional Review Board) **Helsinki:** Yes **Informed Consent:** Yes