

FACTORS PREDICTING OCCURRENCE OF TRANSIENT URINARY INCONTINENCE AFTER HOLMIUM LASER ENUCLEATION OF THE PROSTATE

Hypothesis / aims of study

Holmium laser enucleation of the prostate (HoLEP) is a recent step in enabling a true anatomical enucleation of prostatic tissue. The aims of this study was to identify the factors associated with occurrence of transient urinary incontinence (TI) after HoLEP for the surgical treatment of benign prostatic hyperplasia (BPH).

Study design, materials and methods

The data from the 624 consecutive patients who underwent HoLEP for the symptomatic BPH between January 2010 and December 2011 were evaluated retrospectively. Data were analyzed to obtain prostate volume by transrectal ultrasound, serum prostate specific antigen (PSA), hospitalization time, time to catheter removal, enucleation and morcellation time, and weight of resected prostate. The follow up included the International Prostate Symptom Score (IPSS), quality of life (QoL) score, maximum urinary flow rate (Qmax), and postvoiding residual urine volume (PVR). Urinary incontinence was defined according to the International Continence Society and by the question 'Do you have involuntary loss of urine?'

Results

The patients' mean age was 68.1 ± 7.6 years and mean prostate volume was 57.2 ± 30.3 g. Mean enucleation time was 56.6 ± 42.3 minutes, mean morcellation time was 12.3 ± 18.9 minutes, and the mean resected weight of the prostate was 21.4 ± 24.5 g. The mean catheter indwelling period was 36.3 ± 35.4 hours and mean hospital stay was 3.2 ± 2.5 days. TI occurred in 59 patients (9.5%) after HoLEP.

Table 1. Preoperative and postoperative parameters

	Patients without TI (n=565)	Patients with TI (n=59)	p-value
Age (years)	67.2 ± 7.7	70.8 ± 7.4	0.000
TRUS prostate volume (g)	49.1 ± 23.4	73.8 ± 44.8	0.205
PSA (ng/ml)	4.2 ± 8.1	6.5 ± 8.2	0.422
Enucleation time (minutes)	51.2 ± 27.4	67.5 ± 33.1	0.083
Morcellation time (minutes)	9.8 ± 13.3	19.6 ± 25.3	0.028
Resected volume (g)	17.0 ± 18.8	37.3 ± 36.1	0.032
Hospital period (days)	3.3 ± 2.7	3.2 ± 2.3	0.054
Indwelling catheter period (hours)	35.7 ± 35.1	38.1 ± 41.4	0.222

Interpretation of results

The patient's age, morecllation time and resected volume were associated with the occurrence of postoperative TI.

Concluding message

After HoLEP, some patients experienced TI and most of them showed recovery within 6 months. HoLEP is a safe and effective modality for treating symptomatic BPH despite of TI.

Disclosures

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