

## PREDICTION OF ORTHOSTATIC EJACULATION AFTER HOLEP IN PATIENTS WITH BPH

### Hypothesis / aims of study

To identify the prognostic factors causing orthostatic ejaculation following Holmium Laser Enucleation of Prostate (HoLEP) in patients with benign prostatic hyperplasia (BPH).

### Study design, materials and methods

A total of 61 men with symptomatic BPH requiring surgery were enrolled in the study between October 2014 and June 2015. The patients were treated by preservation of verumontal hood, bladder neck and apex tissue during HoLEP. Demographic data from these patients included age, International Prostate Symptom Score (IPSS), quality of life (QoL) score, prostate volume by transrectal ultrasound and serum prostate specific antigen (PSA). Perioperative parameters were analyzed, including hospitalization time, time to catheter removal, enucleation time, morcellation time and weight of resected prostate. Logistic regression analysis and receiver operating characteristic analysis were conducted.

### Results

The 61 patients were divided into a orthostatic ejaculation group (n = 24 ) and a retrograde ejaculation group (n = 37 ). The Demographic data and perioperative parameters of the 61 men are summarized in table 1. Multivariate analysis showed that PSA (odds ratio [OR] = 1.12), Resected volume (OR = 0.90) were associated with orthostatic ejaculation(table 2). The ROC curves of variables significantly related to orthostatic ejaculation are shown in figure 1.

Table 1. Patient characteristics between orthostatic ejaculation and retrograde ejaculation group

Parameters	Orthostatic ejaculation (n = 24)	Retrograde ejaculation (n = 37)	P value
Age, years	65.08±6.3	67.08±7.1	0.27
IPSS	22.38±9.3	18.22±8.6	0.79
QoL	3.54±1.6	3.32±1.7	0.63
Prostate volume, g	39.48±14.7	48.17±18.0	0.06
PSA	4.14±7.9	3.1±2.4	0.54
Qmax, ml/s	10.42±5.3	13.87±7.6	0.06
PVR, ml	78.25±67.3	63.16±60.0	0.36

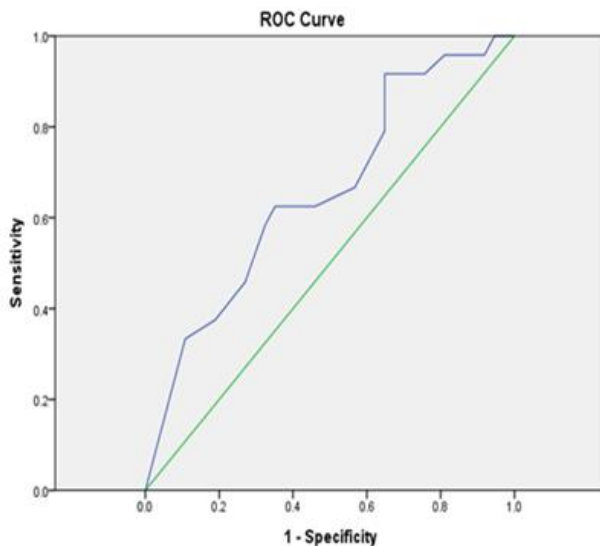
Table 2. Perioperative parameters in each group

Parameters	Orthostatic ejaculation (n = 24)	Retrograde ejaculation (n = 37)	P value
Hostpitalization time, day	3.33±0.7	3.63±1.0	0.21
Time to catheter removal, hr	56±16.8	63.57±23.5	0.18
Enucleation time, min	29.29±22.4	35.0±20.0	0.31
Morcellation time, min	2.29±2.1	3.59±3.8	0.13
Resected volume, g	6.33±7.3	11.73±12.1	0.03
3-month IPSS	12.75±7.0	9.03±5.3	0.02
3-month QoL	2.00±1.3	1.89±1.2	0.75
3-month Qmax, ml/s	21.24±5.9	23.0±7.2	0.34
3-month PVR, ml	33.3±33.6	31.1±34.7	0.81

Table3. Multiple logistic regression analysis of the factors influencing orthostatic ejaculation following preservation of verumontal hood, bladder neck and apex tissue during HoLEP

Parameters	OR (95% CI)	p value
Resected volume, g	0.90(0.82-0.98)	0.02

Figure 1. ROC curves of resected volume related to orthostatic ejaculation



Interpretation of results

For orthostatic ejaculation following HoLEP, the principal cutoff value of resected volume (area under the ROC curve = 0.655) was 5.5g with a sensitivity of 0.63 and a specificity of 0.65.

Concluding message

This study confirms the negative and consistent correlations between the resected volume and orthostatic ejaculation.

Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** PNUH-IRB Helsinki: Yes **Informed Consent:** Yes