

## INTRAVESICAL PROSTATIC PROTRUSION (IPP), NOT PROSTATE VOLUME PREDICTS OUTCOMES OF HOLEP IN PATIENTS WITH LOWER URINARY SYMPTOMS: IMPLICATION FOR THE MECHANISM OF THE BLADDER OUTLET OBSTRUCTION.

### Hypothesis / aims of study

Holmium laser enucleation of the prostate (HoLEP) is a safe and efficient procedure for the treatment of patients with lower urinary symptoms (LUTS). However, lower urinary symptoms are sometimes retained after HoLEP. We investigated prognostic factors of successful treatment of HoLEP.

### Study design, materials and methods

We retrospectively identified 61 patients who underwent HoLEP for the treatment of LUTS at our institution between 2004 and 2012. Of 61 patients, 17 was medically refractory urinary retention requiring catheterization or residual voiding volume (PVR)>300ml. To identify prognostic factor for success of HoLEP, perioperative data was evaluated including patients' demographics, prostate volume (PV), uroflowmetry and IPP. Successful treatment of HoLEP is defined as change of Qmax postoperatively ( $\Delta Q_{max}$ ) > 5 ml/s in patients without urinary retention, and removal of catheter and PVR < 150 ml in patients with retention.

### Results

Mean age of patients was 70 years, and prostate volume was 60 ml. Individuals had statistically improvements in maximum urine flow (Qmax, 7.8 vs 17.0 ml/s,  $P < .05$ ) and PVR (104 vs 29ml,  $P < .05$ ) postoperatively. Success rate of patients with urinary retention was 100% (17/17), whereas that of patients without urinary retention showed 66% (30/46). In 46 patients without retention, longer IPP was associated with  $\Delta Q_{max}$  (beta coefficient, 0.53 [95%CI, 0.17 to 0.89];  $P = .005$ ), but PV did not show association with Qmax improvement (-0.001 [95%CI, -0.09 to 0.83];  $P = .98$ ) (Figure). Success rate was significantly higher in patients with IPP>10mm. ROC curve showed that IPP was better prognostic factor than age or PV (AUC, 0.76) than PV or age.

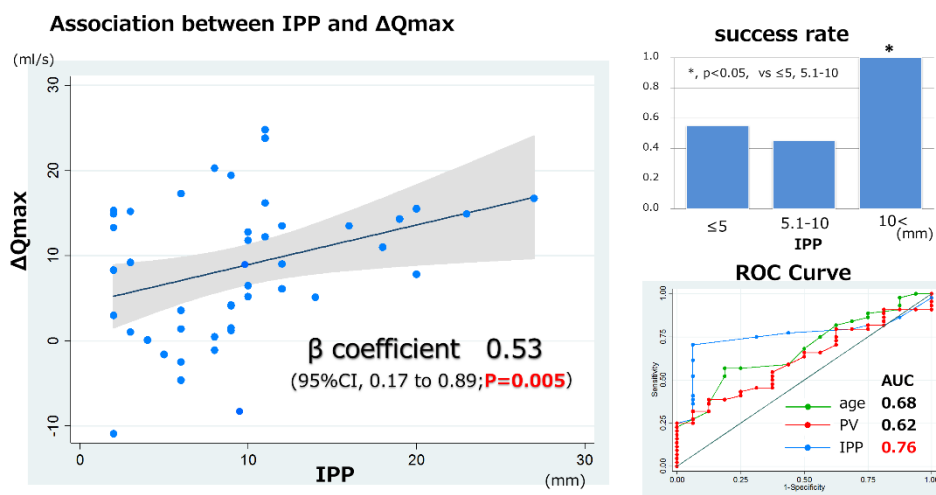
### Interpretation of results

Longer IPP, not prostate volume is associated with successful HoLEP in patients with LUTS. These results imply that individuals with disturbance of bladder neck opening by prostate are likely to improve voiding dysfunction by HoLEP. IPP seems a good maker for disturbance of bladder neck opening. Patients who had ever urinary retention are also good candidates for HoLEP.

### Concluding message

IPP is a good prognostic factor of successful treatment of HoLEP in patients with LUTS.

Figure



### Disclosures

**Funding:** NONE **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** this is a retrospective study. We just collected perioperative patients' data. **Helsinki:** Yes **Informed Consent:** No