

HOLMIUM LASER ENUCLEATION OF THE PROSTATE INDEPENDENT OF PROSTATE SIZE: HOW ABOUT IN SMALL PROSTATE?

Hypothesis / aims of study

To evaluate the efficacy and durability of holmium laser enucleation of prostate (HoLEP) in patient with prostate less than 40 grams.

Study design, materials and methods

We reviewed the data of 26 patients with preoperative prostate size less than 40 grams under trans-rectal ultrasonography, who had undergone HoLEP at our institution from October 2010 to September 2011. The patients characteristics, serum prostate specific antigen (PSA), preoperative and postoperative international prostate symptom score (IPSS), including quality of life (QoL), peak urinary flow rate (Qmax), postvoiding residual urine volume (PVR) were recorded and perioperative parameters, operation time (enucleation time with morcellation time), total energy used, catheterization time, hospital stay were also recorded.

Results

The mean patients' age was 66.8 ± 7.6 years and mean prostate size was 29.3 ± 7.1 g. The operation time was 33.0 ± 14.6 minutes, and the mean catheterization time and hospital stay was 1.8 ± 1.2 days and 4.2 ± 1.4 days, respectively. At postoperative follow up, the IPSS was improved from 23.0 ± 8.6 to 8.9 ± 8.5 , the QoL score had improved from 4.7 ± 1.4 to 2.0 ± 1.4 . The peak urinary flow rate had increased from 8.8 ± 6.1 ml/s to 18.5 ± 9.2 ml/s and the postvoiding residual volume had decreased from 59.3 ± 83.8 ml to 22.8 ± 32.0 ml. There were no major complications were encountered.

Table 1. Preoperative patient characteristics and perioperative findings

Patient's characteristics	Mean \pm SD (range)
Age (years)	66.8 ± 7.6 (53~83)
TRUS prostate volume (g)	29.3 ± 7.1 (12.9~39.5)
PSA (ng/ml)	1.7 ± 2.1 (0.1~8.5)
Operation time (minutes)	33.6 ± 14.6 (10~60)
Hospital period (days)	4.2 ± 1.4 (3~9)
Indwelling catheter period (days)	1.8 ± 1.2 (1~6)

Interpretation of results

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

Concluding message

Holmium laser enucleation of the prostate is safe and effective treatment in patients with small size prostate as well as those with larger prostates, with low morbidity.

Disclosures

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