

COMPARISON OF CLINICAL RESULTS BETWEEN TURP AND HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HoLEP) BASED ON THE INITIAL EXPERIENCE IN PATIENTS WITH OBSTRUCTIVE BPH

Hypothesis / aims of study

To compare the surgical results between holmium laser enucleation of the prostate (HoLEP) and transurethral resection of the prostate (TURP) in patients with obstructive BPH

Study design, materials and methods

Between March 2007 and March 2011, 240 patients with lower urinary tract symptoms secondary to benign prostatic hyperplasia were randomized to HoLEP group (120 cases; mean age 68.0±7.5 years old) or TURP group (120 cases; mean age 69.2±7.3 years old). All patients were evaluated by preoperative and postoperative International Prostate Symptom Score(IPSS), peak flow rate(Qmax) and post-void residual urine volume(PVR), measurement of prostate specific antigen and transrectal ultrasound prostate volume. Follow up evaluations were performed during visits at 1, 3, 6 months.

Results

Both groups were comparable in terms of age, pre-operative IPSS, QOL index, urodynamic study results and prostate volume. During operation, decrease in hemoglobin was less in the HoLEP group than in the TURP group (0.92±1.2 vs 1.97±1.4 g/dl, p < 0.05). The operation time was significantly longer in the HoLEP group than in the TURP group (89.5±38.0 vs. 51.3±30.7 minutes, p < 0.001). Mean resected weight was 14.3±15.3 g (5-27) in the TURP group and 14.9±13.4 g (5-26) in the HoLEP group (p = 0.337). The catheterization period (2.1±1.2 vs. 4.8±1.2 days, p < 0.001) and hospital stay (3.6±2.3 vs. 7.4±2.2 days, p < 0.001) were significantly shorter in the HoLEP group than in the TURP group. At follow up, Qmax, average flow rate and PVR in two groups improved significantly, and these parameters were not significantly different between the groups after 3 months.

Interpretation of results

Both TURP and HoLEP were effective in relieving BOO. The estimated blood loss, a catheterization time and hospitalization were less or shorter in the HoLEP group.

Concluding message

HoLEP may be a good alternative to the conventional TURP in patients with obstructive BPH.

Specify source of funding or grant	none
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
Is this a Randomised Controlled Trial (RCT)?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	retrospective clinical results analysis
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes