

COMPARATIVE ANALYSIS OF SHORT-TERM EFFICACY AND COMPLICATION OF PHOTOSELECTIVE VAPORIZATION FOR BENIGN PROSTATIC HYPERPLASIA WHICH WAS CLASSIFIED BY PROSTATE SIZES

Hypothesis / aims of study

The potassium titanyl phosphate (KTP) vaporization of the prostate offers promising modalities in treatment of bladder outlet obstruction (BOO) caused by benign prostatic hyperplasia (BPH). The aim of this study is to compare the short term clinical efficacy and complications of photoselective vaporization for benign prostatic hyperplasia (BPH), which were classified based on the prostate sizes.

Study design, materials and methods

114 patients with lower urinary tract symptoms secondary to BPH underwent 80 W KTP laser vaporization of the prostate, between June 2006 and March 2007. All patients were classified into three groups by their prostate sizes (< 40cc; group I, 40-60cc; group II, > 60cc; group III). All patients underwent standard urologic evaluation with the International Prostate Symptom Score (IPSS), quality of life (QoL) index, peak urinary flow rate (Qmax), ultrasound measurement of prostate volume, post-void residual urine volume (PVR), assay of prostate specific antigen (PSA), and digital rectal examination. Total operating time, total energy used (measured in joules) and the catheter indwelling times after the operation were also recorded. The patients were reassessed at 3 months postoperatively for changes in these measures.

Results

Preoperatively, there were no significant differences between groups, except for PSA, which correlated with prostate sizes in all groups ($p < 0.05$), when compared with IPSS, QoL index, Qmax and PVR. The postoperative parameters were significantly improved in all patients ($p < 0.05$). With respect to each of the three classified groups, the postoperative parameters of each group were also significantly improved ($p < 0.05$). However, total operating time, total energy used and the catheter indwelling time after operation increased, as prostate sizes enlarged. The rates of complications were not significantly different between the groups.

Interpretation of results

Although total operation time, total energy used and the catheter indwelling time increased, KTP vaporization of the prostate had the improvements in IPSS, QoL index, Qmax and PVR regardless of the prostate size.

Concluding message

Photoselective vaporization of the prostate (PVP) using the high power (80 W) potassium-titanyl-phosphate laser for BPH proved to be an effective and safe procedure regardless of prostate sizes.

<i>Specify source of funding or grant</i>	no
<i>Is this a clinical trial?</i>	Yes
<i>Is this study registered in a public clinical trials registry?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	it was a retrospective study
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes