

EXPERIENCE OF THULIUM LASER VAPORESECTION OF PROSTATE FOR THE MANAGEMENT OF BENIGN PROSTATIC HYPERPLASIA

Hypothesis / aims of study

Thulium laser vaporesction of prostate was one of the minimally invasive therapies for benign prostatic enlargement (BPH) and was developed recently. We report our results of thulium laser vaporesction of prostate.

Study design, materials and methods

From January 2007 to September 2009, one hundred and thirty eight (138) patients, age 51 to 88 years old (mean 70.1±8.3), received Thulium laser. Pre-operative prostate specific antigen (PSA), international prostate symptom score (IPSS), uroflow rate, residual urine (assessed by bladder scan), serum hemoglobin, white cell count, sodium, international index of erectile function-5 (IIEF-5) and prostate size (assessed by trans-rectal ultrasound) were surveyed. The operative time, Foley catheter indwelling period and immediate post-operative complications were documented. The patients received post-operative survey of serum hemoglobin, white cell count, sodium, IPSS, uroflow rate, residual urine, incidence of retrograde ejaculation and IIEF-5 three months later.

Results

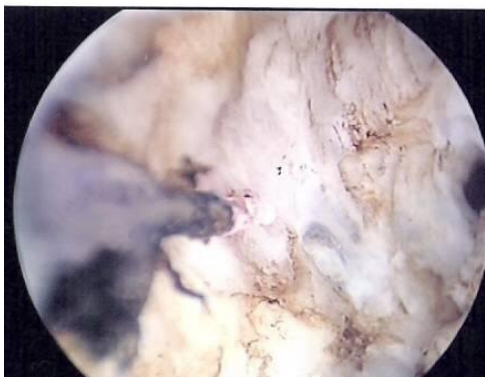
The mean PSA was 5.15 ± 3.24 (0.28 ~ 20.3) ng/dl. The pre-operative mean IPSS total, obstructive and irritative scores were 24.7±2.4 (21 ~ 33), 14.9±1.8 (9 ~ 20) and 9.5±2.1 (8 ~ 14) respectively. The pre-operative maximum flow rate was 8.7±2.3 (3 ~ 22) ml/sec, residual urine 111.2±188.2 (3 ~ 1367) ml, and prostate size 50.61±22.3 (27.3 ~ 123) ml. Twenty-eight patients had erectile dysfunction before operation. The operative mean period was 30.2±19.7 (6 ~ 106) minutes, and Foley indwelling period was 32.7±18.1 (3 ~ 175) hours. The pre-operative max flow, IPSS, hemoglobin, WBC, sodium and post-operative max flow, IPSS, hemoglobin, WBC, sodium showed significant difference. The pre-operative IIEF-5 and post-operative IIEF-5 showed no significant difference. Four patients (2.9%) suffered from urine retention after Foley catheter removal and needed re-indwelling. Three patients (2.2%) had delay bleeding 2 weeks postoperatively and transurethral check bleeding is needed. Thirty four patients had retrograde ejaculation.

Interpretation of results

Thulium laser vaporesction of prostate could improve the IPSS and urinary flow rate of the patients with BPH without significant complication. It is an effective and save procedure for the treatment of BPH.

Concluding message

Thulium laser vaporesction of prostate could get tissue for pathological study to rule out malignancy. It is effective for the treatment of BPH and is an almost bloodless procedure and had the benefit of shorter catheterization period.





<i>Specify source of funding or grant</i>	Taipei City Hospital, Taiwan
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	IRB of Taipei City Hospital
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes