BODY MASS INDEX AND AGE ARE PREDICTORS FOR SYMPTOMS IMPROVEMENT AFTER HIGH-POWER LASER VAPORIZATION FOR BENIGN PROSTATIC HYPERPLASIA

Hypothesis / aims of study

To evaluate the effectiveness and safety of high-power 120W Greenlight HPS[™] laser (HPS) and compare the results to TURP and define a subgroup which had better symptoms score improvement after HPS

Study design, materials and methods

One hundred and twenty-five patients underwent surgery for BPH (61 HPS and 64 TURP) were retrospectively followed. Improvements of international prostate symptoms score (IPSS), quality of life score (QoL), maximum flow rate (Qmax) and post-void residual (PVR) were assessed at four weeks after the procedures. Potential covariates including age, body mass index (BMI), prostate volume (PV) and serum PSA were defined and further subgroup analyses were utilized.

Results

HPS group had significantly higher education level, annual household income and larger prostate size. Compared with TURP, HPS resulted in comparable IPSS, QoL, Qmax and PVR improvements, but less hospitalization duration, serum hemoglobin loss and blood transfusion rate. Subgroup analyses showed younger (age< 76) and higher BMI (BMI≧24) men in HPS group had greater adjusted IPSS and QoL improvements than TURP.

Interpretation of results

Our results showed comparable functional outcomes including IPSS, QoL Qmax and PVR improvements between HPS and TURP. IPSS decreased 70 % (13.5 points) from baseline for HPS group, which are similar to many published series. Compare to TURP group, HPS accounts for lower hemoglobin and electrolyte loss and adequate safety. Surgeon may suggest HPS as a recommendation for large prostate patients who can afford the cost of the procedure, especially men with high-risk or moderate to severe condition with co-morbidity. In the present study, the HPS patients had significantly larger prostate, which may resulted in more adenoma volume reduction and insignificantly better IPSS and QoL improvements than TURP

Concluding message

HPS offered adequate effectiveness for symptomatic BPH versus TURP and was advantageous with regard to operative safety. Younger and higher BMI HPS patients may achieve better improvements than TURP. Further long-term follow-up study is warranted.

References

- 1. GreenLight HPS 120-W Laser Vaporization versus Transurethral Resection of the Prostate for the Treatment of Lower Urinary Tract Symptoms due to Benign Prostatic Hyperplasia: A Randomized Clinical Trial with 2-year Follow-up. Eur Urol 2011
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Disclosures

Funding: none Clinical Trial: No Subjects: HUMAN Ethics Committee: Cardinal Tien hospital Helsinki: Yes Informed Consent: Yes