

GREEN LIGHT LASER PHOTOSELECTIVE VAPORIZATION VS TURP: A RETROSPECTIVE STUDY.

Hypothesis / aims of study

High prevalence of BPH and gradual ageing of the population, combined with the existence of effective medical treatments for this condition, has led to an increasing attention of the use of surgery in delicate patients. Throughout the past decade, numerous techniques for the treatment of benign prostatic hyperplasia have emerged. Laser therapy (Holmium, Tullium and Green LASER) has gained widespread popularity among urologists, and have been evaluated in the treatment of glands of all sizes. Published studies have provided significant evidence that the photoselective vaporization of the prostate laser procedure is efficient, safe, easy to learn and early results show that it can compete with transurethral resection of the prostate. From March 2010 to November 2011 163 pts underwent Green Light LASER (HPS) 120 W. We retrospectively compared this population with 164 patients whom underwent transurethral prostate resection in the same timeframe. Aim : to compare outcome and complications of Green light laser (HPS) 120 watt and monopolar TURP in the treatment of BPH.

Study design, materials and methods

The mean age of the patients was 72 yr and 70 yr respectively. Mean volume of prostates was 71,7 cc and 73 cc respectively. All patients were evaluated preoperatively and postoperatively by using the International Prostate Symptom Score, volume of prostate, maximum flow rate, haemoglobin values, and post-micturition volume of residual urine. Days of bladder catheterisation, duration of the procedure, and prostate-specific antigen values were determined as well.

Results

The results in patients, who underwent photoselective vaporization and TURP, were evaluated.

- ΔHb: -0.8 gr for HPS vs -3,3 gr for TURP (p< 0.05)
- Mean surgery time: 36' with HPS 120 W vs 28' with TURP
- No intraoperative complications with HPS vs 9/164 patients with bleeding requiring transfusions (3-7 units) with TURP.
- Mean hospitalization: 1,37 days (33 hours) with HPS vs 3.2 days with TURP. (p< 0.05)
- Mean catheterization time: 17 hours with HPS vs 72 hours with TURP. (p< 0.05)
- IPSS score difference 15 with HPS vs 16 with TURP
- Maximum flow rate difference 10 ml/sec with HPS vs 8 ml/sec with TURP
- PVR difference 150 cc with HPS vs 120 cc with TURP

The most common complication, urgency, was seen in 35 patients (25%) for the laser group and in 25 pts (20%) at the 3 months follow up visit.

Interpretation of results

Outcomes of HPS are at least comparable with monopolar TURP. Complication rate is in favour of green laser in terms of less bleeding. Hospitalization time and catheterization time are shorter with green laser.

Concluding message

Photoselective laser vaporisation of the prostate is a valid alternative to TURP.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Ethics Committee of Azienda Ospedaliero Universitaria di Udine **Helsinki:** Yes **Informed Consent:** Yes