DIFFERENCE OF OPINION

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BPH treatment: laser for everyone | *Opinion: YES*

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During the past decades, transurethral resection of the prostate (TURP) has been the gold--standard procedure for surgical treatment of benign prostatic hyperplasia (BPH) and became the second most common surgery in men in the Western world (1). A number of other techniques were developed through the years, trying to replace TURP, including vaporization, microwave thermotherapy, transurethral needle ablation (TUNA) and various types of laser therapies. The rational of looking for new therapies for BPH lies on the intention of delivering the same results with less complications and adequate length of stay at the hospital or even as an outpatient procedure. Indeed, morbidity and mortality following TURP are continuous issues. Reich et al. (2) evaluated 10,654 patients that underwent TURP in state of Bavaria, Germany. The cumulative short-term morbidity rate was 11.1%. The most important complications were failure to void, surgical revision, bleeding, urinary tract infections and TURP syndrome. Rassweiler et al. (3) showed decreasing complication rates in a review conducted from 1989 to 2005. Bipolar TURP emerged as a significant evolution in the last years, especially because saline solution can avoid TURP syndrome and enables a greater volume of tissue resection However, Skolarikos et al. (4) recently showed similar results in safety and efficacy comparing monopolar and bipolar TURP, with the same possible complications throughout the years.

In the other hand, various techniques of lasers were compared to TURP. Currently, holmium laser (HoLEP) and Greenlight are two of the most common used. Greenlight was released in 2006 and improved from 80W to 180W output (5). The GOLIATH study (6) compared Greenlight (GL) 180W with TURP (Monopolar and Bipolar) and considered Gl non-inferior to TURP in terms of International Prostate Symptom Score (IPSS), Qmax and proportion of patients free of complications. However, early reinterventions were lower in the GL group. These data clearly show GL has the same efficacy as TURP in relieving the symptoms and obstruction, but with the advantage of less early postoperative problems (Clavien III complication) (7). Stone et al. (8) also described good results in patients with prostate size greater than 150mL (median 202mL). Performing TURP in such individuals remains challenging.

HoLEP is an enucleation technique and has the largest number randomized control trials available comparing TURP and open prostatectomy. A meta-analysis conducted recently demonstrated similar efficacy outcomes of bipolar TURP and photovaporization and better results than monopolar TURP (9). Gilling et al. (10) also described long-term results (mean 7.6 years). Although, HoLEP requires morcellation to retrieve the prostate tissue and needs a learning curve of 40 to 60 cases, it emerges as a novel widespread used procedure for surgical treatment of BPH. HoLEP success has been reproduced in a number of studies (11). Recently, some authors

described similar results comparing HoLEP and 120W GL (12, 13).

All these studies focused on all patients with BPH. If we considered special populations such as those receiving anticoagulants and anti-platelet and therefore not with suitable indication for TURP, both HoLEP and GL appears as feasible procedures (14, 15). Rajih et al. (16) compared men with high medical risk (HMR) by the American Society of Anesthesiologists (class 3) with healthier individuals and demonstrated similar results according to IPSS, Qmax, postvoid residual volume and quality of life. HMR group had more readmissions (3.7% vs. 1.3%; p=0.04), but regarding the comorbidities of these patients, we can consider only a few number of patients (3.7%) needed a new hospitalization.

It seems the era of laser for BPH has finally come. Urologists must learn these new procedures and discuss the proper option with their patients.

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