The Bipolar Plasma Vaporization of the Prostate: A New "Standard" in 2012?

Introduction and Objectives: The study aimed to perform a retrospective long-term analysis of bipolar plasma vaporization of the prostate (BPVP) in average size benign prostatic hyperplasia (BPH) cases concerning the perioperative and follow-up parameters.
Materials and Methods: A total of 170 patients with maximum flow rate (Q_{max}) < 10 ml/s, international prostate symptoms score (IPSS) > 19 and prostate volume between 30 and 80 ml were enrolled in the trial. All cases were evaluated preoperatively and at 1, 3, 6, 12 and 18 months after surgery by IPSS, quality of life score (QoL), Q_{max} and abdominal and transrectal ultrasonography.
Result: The mean preoperative prostate volume was 54.1 ml. All procedures were successfully carried out under spinal anesthesia. The technique emphasized decreased capsular perforation (1.2%), intraoperative bleeding (1.8%), postoperative hematuria (2.9%), blood transfusion (1.2%) and clot retention (0.6%) rates as well as a low mean hemoglobin drop (0.5 g/dl). The operation time (39.7 min), catheterization period (47.5 hours) and hospital stay (2.9 days) were also reduced. The rates of re-catheterization (1.8%), re-hospitalization for secondary hemorrhage (0.6%) and irritative symptoms (12.4%) emphasized satisfactory results. In the long term, minimum urethral strictures (4.7%), bladder neck sclerosis (0.6%) and re-treatment (3.5%) rates were described. During the 1, 3, 6, 12 and 18 months' follow-up, BPVP patients presented superior parameters in terms of IPSS (4.2-5.0), Q_{max} (23.7-24.9 ml/s) and QoL (0.8-1).
Conclusions: BPVP represents a valuable endoscopic treatment alternative for BPH patients, with significantly superior efficacy and satisfactory complication rate. The long term follow-up emphasized durable improvements of the postoperative parameters for this type of approach.