Bipolar versus Monopolar Transurethral Resection of the Prostate: Results of a Comparative, Prospective Bicenter Study - Perioperative Outcome and Long-Term Efficacy

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Objectives: To compare bipolar and monopolar transurethral resection of the prostate (TURP) in a comparative prospective study at two urology centers.

Methods: Of 212 patients with symptomatic benign prostatic hyperplasia entered prospectively into the study, 111 underwent bipolar and 101 monopolar TURP. Patients were treated in two consecutive series with each surgical method at both centers. Improvement in peak flow rate, postvoid residual, International Prostate Symptom Score, and quality of life score postoperatively and at 3, 12, 24 and 36 months, as well as long-term adverse events were compared. Regarding safety, duration of surgery, postoperative catheterization and hospitalization time, amount of fluid absorption, frequency of transurethral resection (TUR) syndrome, and risk of hemorrhage were evaluated. Results: Patient characteristics of the two series were comparable. The risk of developing TUR syndrome (p = 0.32) and bleeding tendency (p = 0.52) did not differ significantly between groups. Significant differences were seen for duration of surgery and resection speed. All functional parameters improved significantly during follow-up, with no relevant differences between surgical groups. Conclusions: Since no major differences in efficacy and safety were seen between the surgical groups, we feel that the monopolar technique still has a valuable place in TURP.