

## SAFETY AND EFFICACY OF MONOPOLAR AND BIPOLAR TRANSURETHRAL SURGERY IN THE TREATMENT OF VOLUMINOUS BENIGN PROSTATIC HYPERPLASIA ASSOCIATED WITH SEVERE LOWER URINARY TRACT SYMPTOMS

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### ABSTRACT

**Introduction.** Benign prostatic hyperplasia (BPH) is a frequent condition in elderly men that induces severe lower urinary tract symptoms.

**Objective.** To evaluate the efficacy of monopolar and bipolar transurethral resection in the treatment of voluminous BPH. **Material and methods.** From 2020 to 2022, 110 patients with BPH were included in the study: TUR-P (60 patients) and bipolar TUR-P (50 patients). All patients were evaluated preoperatively and at 3 months postoperatively (IPSS, QoL, TRUS-P and uroflowmetry). Inclusion criteria were: prostate volume (PV)  $\geq 80\text{cm}^3$ , post-void residual volume (PVR)  $\geq 50\text{ml}$ , IPSS  $\geq 25$ ,  $Q_{\text{max}} \leq 10\text{ml/s}$ ,  $Q_{\text{oL}} \geq 4$ .

**Results.** There was no significant difference in the efficiency of the investigated methods at 3

months postoperatively: PVR -  $12 \pm 8\text{ml}$  (TUR-P group) vs  $10 \pm 4\text{ml}$  (bipolar TUR-P group), PV was  $26 \pm 7\text{cm}^3$  vs  $22 \pm 3\text{cm}^3$ , respectively, in the groups. A comparable improvement in  $Q_{\text{max}}$  was found in the TUR-P group (+129%) and the bipolar TUR-P group (+137%). Patients reported a significant improvement in lower urinary tract symptoms in the postoperative examination after monopolar surgery (IPSS- $10 \pm 3$ , QoL- $2 \pm 1$ ) and bipolar surgery (IPSS- $9 \pm 2$ , QoL- $2 \pm 1$ ), with similar results. A notable difference was the duration of the surgical intervention, which was on average  $94 \pm 12$  minutes for monopolar resection and  $86 \pm 9$  minutes for bipolar resection. **Conclusions.** Bipolar and monopolar transurethral prostate resection have a similar safety/efficacy ratio in patients with voluminous BPH associated with severe lower urinary tract symptoms.