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HOLMIUM LASER ENUCLEATION VERSUS TRANSURETHRAL RESECTION FOR SURGICAL MANAGEMENT OF INTERMEDIATE SIZED BENIGN PROSTATIC HYPERPLASIA IN PATIENTS WITH DETRUSOR UNDERACTIVITY

Hypothesis / aims of study

Recent studies have revealed that surgical management of BPH in patients with detrusor underactivity (DU) can be effective to improve voiding symptoms. In this study, we compared the short-term outcomes of Holmium laser enucleation of the prostate (HoLEP) and transurethral resection of the prostate (TURP) for the management of intermediate sized (30-80 cc) BPH in patients with DU.

Study design, materials and methods

From January 2010 to May 2015, 49 patients who had an intermediate sized prostate ranging from 30 to 80 cc and had DU were enrolled (HoLEP; 17, TURP; 32). Surgical outcomes and postoperative voiding symptom improvements were compared retrospectively between the two groups. All patients took alpha-adrenoreceptor blockers and 5 alpha reductase inhibitors before the surgery and DU was defined as detrusor pressure at maximal flow (PdetQmax) under 40 cmH₂O measured by pressure flow study

Results

The mean prostate volume of the HoLEP and TURP group were 50.2±11.8 and 50.0±15.7 cc (p = 0.953). The PdetQmax of each group was 34.7±5.7 cmH₂O and 33.1±10.0 cmH₂O (p= 0.483), mean operation time and resected volume of prostate was 86.2±13.9 and 78.8±24.0 minutes (p = 0.246), 29.6±11.1 and 25.0±7.9 g (p = 0.099), respectively. There were no significant differences in preoperative international prostate symptom score (IPSS), maximum flow rate (Qmax), and post-void residual urine volume (PVR) between the two groups. Uroflowmetry (UFM) measured three months after the operations showed that the Qmax for HoLEP and TURP group was 16.1±6.0 ml/s and 10.4±7.0 ml/s (p=0.006). HoLEP group showed lesser post-operative PVR than TURP group (11.2±36.0 cc vs 52.5±80.0 cc, p=0.017). Post-operative IPSS checked at 3 months after surgery was not significantly different between both groups (12.1±5.9 vs 12.9±7.0, p = 0.684). Only 17.7 % in HoLEP group continued BPH medications after surgery, meanwhile 65.6 % in TURP group kept medications (p = 0.001).

Concluding message

This study showed that both HoLEP and TURP can be safely and effectively performed in patients with intermediate sized BPH and DU. However, HoLEP can be more helpful to improve voiding symptoms compared to TURP in patients with intermediate sized BPH and DU.

Disclosures

Funding: No **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective study **Helsinki:** Yes **Informed Consent:** Yes