Holmium laser enucleation of the prostate (HoLEP) represents a great potential alternative technique to standard transurethral resection of the prostate (TURP). We present 12-month follow up results of a randomized clinical trial, comparing HoLEP with TURP. A total of 40 patients with BPH and prostate volume < 50g, have been randomized for HoLEP (n=20) or TURP (n=20). Urinary tract ultrasound with postvoid residual urine (PVR), International Prostate Symptom Score (IPSS) and Single Question Quality of Life (QoL) Score were evaluated preoperatively and during the follow-up period at 1, 3, 6, and 12 mo postoperatively. Intra- and perioperative data as well as early and late complications were assessed. Operative time was longer in the HoLEP group (p<0.001); catheterisation time (p<0.05) and hospital stay (p<0.05) shorter. Hemoglobin levels drop (p<0.001) was higher in the TURp group. Early and late postoperative complications were more frequent in the TURp group (p<0.001). Follow-up data favored the HoLEP group, both regarding IPSS at 6-month (p<0.05) and 12-month (p<0.01), and single question QoL score, at 6-month (p<0.01) and 12-month (p<0.05). PVR was lower in the HoLEP group at 6 month (p<0.01). HoLEP demonstrates superiority to TURp in regards to perioperative parameters and follow-up data and has a great potential to become the new gold standard in the surgical treatment of BPH.

Key words: Holmium laser enucleation of the prostate (HoLEP), transurethral resection of the prostate (TURP)