Long-term outcomes of transurethral enucleation and resection of the prostate for benign prostatic hyperplasia

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Abstract

Introduction and Objective: Recent years, endoscopic enucleation of the prostate was recommended as the first choice of surgical treatment for benign prostatic hyperplasia and moderate-to-severe lower urinary tract symptoms. We herein evaluated the long-term effect of transurethral enucleation and resection of the prostate for benign prostatic hyperplasia.

Materials and Methods: 118 cases of benign prostatic hyperplasia underwent transurethral enucleation and resection of the prostate from July 2006 to June 2010 were retrospectively analyzed. Urodynamic examination was performed routinely before and after the surgery. Ten-year postoperative data were collected and analyzed.

Results

Of 118 patients eligible to participate, 102 patients completed at least 96 months of follow-up. The mean follow-up time was 112.6 months. Compared with the preoperative data, the postoperative data showed lower involuntary detrusor contractions rate (24.51% vs 39.22%, p=0.000), which also reflected in overactive Bladder Symptom Score (2.82 ± 2.31 vs 8.56 ± 3.20, p=0.000). Prostate volume was extremely smaller after the operation (18.26 ± 6.99 vs 61.03 ± 21.80 ml, p=0.000). Maximum cystometric capacity was larger than that before (383.30 ± 100.08 vs 225.05 ± 74.30 ml, p=0.000). Long term complications included urethral stricture in 5 cases and bladder neck contracture in 9. Transient urinary incontinence is one of the most common complications in the short term which happened in 3 patients. However, none of patients have found to be urinary incontinence during the 10-year follow-up.

Conclusion: Transurethral enucleation and resection of the prostate ensures a complete adenoma removal result in long-term excellent voiding effect and low recurrence rate, but
the storage symptoms were still needed to be focused on during the follow up which may not be completely resolved by retrograde enucleation. Preoperative Urodynamic examination for benign prostatic hyperplasia is recommended to confirm the operative indication and judge the prognosis of bladder function. A study with better design needs to be carried out to confirm the conclusion in future.

**Key words:** Benign Prostatic Obstruction, Lower Urinary Tract Storage Symptoms, Transurethral Enucleation and Resection of the Prostate (TUERP), Plasmakinetic Enucleation of the Prostate (PKEP), Urodynamic Parameter