

## THE EFFECT OF DETRUSOR OVERACTIVITY ON THE STORAGE SYMPTOMS IN THE PATIENTS WITH BENIGN PROSTATIC OBSTRUCTION WHO UNDERWENT HOLMIUM LASER ENUCLEATION OF THE PROSTATE

### Hypothesis / aims of study

Persistent detrusor overactivity (DO) after transurethral prostatectomy results in symptomatic failure in more than one third of the patients.<sup>1</sup> Storage symptoms are major complaints in the early postoperative period after Holmium Laser Enucleation of the Prostate (HoLEP).<sup>2</sup> To investigate the effect of DO in the patients with Benign Prostatic Obstruction (BPO), we evaluated the changes in the storage symptoms following HoLEP in conjunction with the prescription of the anticholinergic drugs.

### Study design, materials and methods

Eighty men with urodynamically proven BPO underwent HoLEP at our hospital. All patients were evaluated preoperatively with International Prostate Symptom Score (IPSS), International Continence Society male questionnaire short form (ICS-SF), 3-day frequency-volume charts (FVC), transrectal ultrasonography, and uroflowmetry with postvoid residual urine volume. The patients were divided into two groups; BPO without DO (Non-DO group) and BPO with DO (DO group). We assessed the patients postoperatively at 2 weeks, 1, 3 and 6 months after surgery.

### Results

Mean age, prostate volume, and PSA level of the total 80 patients were 68±7 years, 65±38 ml, and 4.7±5.2 ng/ml, respectively. Patients in the DO group (n=40) were older than the men in the Non-DO group (n=40), while prostate volume and the degree of obstruction were similar in both groups. Preoperatively, IPSS and ICS-SF showed significantly higher subtotal storage symptom score in the DO group (p<0.05). The rate of taking anticholinergic drugs was 18.8% of the patients preoperatively, which was similar in both groups. From the 3 months after HoLEP surgery, storage symptoms were reduced significantly in both groups. The reduction of the storage symptoms was improved greatly in the DO group than in the Non-DO group at the 6 months following HoLEP procedure. The patients with taking anticholinergic drugs were increased to 51.3% and 36.3% at 3-month and 6-month after surgery, respectively. The rate of taking anticholinergic drugs was increased significantly in the DO group than in the Non-DO group, especially at 3 months following HoLEP procedure.

### Interpretation of results

Our results showed that the preoperative incidence of the DO was 50% in the men with BPO, and the storage symptoms were more prevalent in the DO group. Also, we found that storage symptoms were improved significantly at the time of 6 months after HoLEP, especially in the DO group. However, more patients in the DO group needed taking the anticholinergic drugs, postoperatively. Although invasive urodynamics were not performed after HoLEP in our patients, we assumed that DO was persistent after relief of BPO, which presented the overactive bladder symptoms frequently and needed more prescriptions of the anticholinergic drugs.

### Concluding message

For the patients with BPO who do not respond to the proper medical therapy, earlier relief of the obstruction using surgical treatment might be beneficial by preventing development of the DO and insuring higher rate of symptomatic success.

### References

1. Housami F, Abrams P. Persistent detrusor overactivity after transurethral resection of the prostate. *Curr Urol Rep.* 2008; 9(4): 284-90.
2. Montorsi F, Naspro R, Salonia A, et al. Holmium laser enucleation versus transurethral resection of the prostate: results from a 2-center, prospective, randomized trial in patients with obstructive benign prostatic hyperplasia. *J Urol.* 2004; 172(5 Pt 1): 1926-9.

### Disclosures

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