

EFFECT OF TURP IN PATIENTS WITH BPH SHOWING NON-OBSTRUCTIVE PATTERN IN PRESSURE-FLOW STUDY AND COMORBID DETRUSOR UNDERACTIVITY

Hypothesis / aims of study

The effectiveness of transurethral resection of prostate (TURP) was evaluated in benign prostate hyperplasia (BPH) patients showing non-obstructive pattern in pressure flow study and comorbid detrusor underactivity.

Study design, materials and methods

Among the patients who underwent TURP from June 2004 to May 2008, 54 patients were included whose bladder outlet obstruction index (BOOI) < 20 and bladder contractility index (BCI) < 100. International Prostate Symptom Score (IPSS), quality of life (QOL), peak flow rate and residual urine was compared between the preoperatively and six months after operation. By using Pearson meta-analytic techniques, we analyzed for correlations between the mean age of the patients, prostate volume, and the gross findings of cystoscopy to investigate the improvements in IPSS, QOL, peak flow rate, and residual urine volume. Gross findings of cystoscopy were classified into three groups of non-obstruction group, incomplete obstruction group, and complete obstruction group, according to the degree of obstruction of prostatic urethra due to hypertrophy of the transitional zone.

Results

Mean age was 66.5±6.7 years old, mean prostate specific antigen level was 2.5±1.9 ng/ml, mean prostate volume and prostate resection rate were 32.2±9.3 cc, 40.5±12.4%, respectively. Gross findings of cystoscopy showed of 16 patients (29.6%) with non-obstruction, 20 patients (37.0%) with incomplete obstruction, and 18 patients (33.3%) with complete obstruction. IPSS and QOL were preoperative value of 25.3±9.3, 4.9±1.1 and postoperative value of 14.4±9.0, 2.4±1.3, and the improvements were statistically significant ($p<0.001$, $p<0.001$). Peak flow rate and residual urine volume also showed improvements from preoperative value of 7.6±4.2 cmH₂O, 133.9±134.7 cc to postoperative value of 14.2±7.3 cmH₂O, 84.3±75.2 cc ($p<0.001$, $p<0.001$). Decrease in IPSS, decrease in QOL, increase in peak flow rate, and decrease in residual urine volume were 7.2±7.3, 1.3±1.4, 6.7±5.7 ml/s, and 24.6±86.3 cc, respectively

Interpretation of results

. Meta-analysis showed that the higher preoperative IPSS, the more evident decrease in postoperative IPSS ($r=0.320$, $p=0.007$), and the degree of obstruction of prostatic urethra correlated with increased peak flow rate ($r=0.320$, $p=0.007$).

Concluding message

Although patients with BPH had non-obstructive pattern in pressure-flow study and detrusor underactivity, TURP proved to be helpful in improving urinary symptoms, peak low rate and residual urine volume. And voiding symptoms markedly improved in patients with higher preoperative IPSS, and the peak flow rate markedly increased in patients with more severe obstruction of prostatic urethra.

Disclosures

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