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Title: RISK FACTORS FOR POST-OPERATIVE POOR QOL IN PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA TREATED BY TRANSURETHRAL RESECTION OF THE PROSTATE

Aims of Study:

Although transurethral resection of the prostate (TUR-P) is a gold standard still now in the treatment of benign prostatic hyperplasia (BPH), it occasionally fails to improve QOL and lower urinary tract symptoms. Particularly, poor QOL following the surgery would ruin patients health conditions. It is, therefore, of importance to reveal risk factors of post-operative poor QOL in patients with BPH treated by TUR-P.

Methods:

A total number of 261 patients with BPH were subjects for this study. Preoperative parameters including age, prostate volume, urinary flow rate, postvoid residual and IPSS were compared with QOL index reported 3 months following TUR-P. Post-operative QOL index of 0-2 and 3-6 was considered good and poor QOL, respectively.

Results:

A QOL index 3 months following TUR-P was 0, 1, 2, 3, 4, 5, 6 in 10%, 38%, 33%, 10%, 6%, 3%, 0% of patients, respectively. As a result, poor QOL was reported in 19% of them. A simple regression analyses demonstrated that scores of frequency (r=0.155, $p<0.05$) and sum of irritable symptoms (frequency+urgency+nocturia)(r=0150, $p<0.05$) correlated significantly with QOL index. A multiple regression analysis revealed postvoid residual ($p<0.05$) and frequency score ($p<0.01$) to be independent determinants of QOL index (r=0205). Between patients with good and poor QOL following TUR-P, significant differences were noted in scores of frequency, nocturia, irritable symptoms and total scores of IPSS. BPH patients with a frequency score of 4 or 5 were 2.2 times as likely to suffer from poor QOL following TUR-P.

Table Comparison of preoperative variables between patients with good and poor QOL

3 months after TUR-P

Variables	QOL 3 months after TUR-P		t-test
	0,1,2 (n=211)	3,4,5,6 (n=50)	
Age (years)	69.7±7.0	69.6±8.0	NS
Prostate volume (ml)	37.8±15.6	36.7±14.7	NS
PSA (ACS, ng/ml)	6.6±9.7	6.5±9.8	NS
Postvoid residual (ml)	57.7±62.8	38.9±52.6	NS
Max flow rate (ml/s)	8.4±4.5	9.0±5.0	NS
Mean flow rate (ml/s)	3.9±5.1	4.2±2.7	NS
IPSS			
Q1 : Incomplete emptying	2.5±1.9	2.8±1.9	NS
Q2 : Frequency	3.1±1.7	3.8±1.6	P<0.05
Q3 : Intermittency	2.5±1.9	2.8±2.1	NS
Q4 : Urgency	2.0±1.8	2.4±2.0	NS
Q5 : Week stream	3.1±1.9	3.6±1.7	NS
Q6 : Hesitancy	1.9±2.0	2.0±2.0	NS

Q7 : Nocturia	2.6±1.4	3.1±1.2	P<0.05
Total score (Q1-7)	17.5±8.1	20.3±8.1	P<0.05
Irritative score (Q2,4,7)	7.8±3.4	9.2±3.6	P<0.01
Obstructive score (Q1,3,5,6)	10.1±5.8	11.2±5.6	NS
QOL index	4.2±1.0	4.4±1.1	NS

Conclusions:

This study demonstrated that irritable symptoms such as frequency and nocturia were risk factors of poor QOL following TUR-P. In selectingTUR-P as a treatment option for BPH, much attention has to be paid to these symptoms in terms of therapeutic effects on QOL following surgery.