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Title: PROPOSAL OF A NEW SYMPTOM SCORE FOR BENIGN PROSTATIC OBSTRUCTION

Aims of Study:

We made a tentative prostate symptom score (PSS) to develop a new PSS which reflects urodynamic findings and prostatic volume. Our PSS named Saitama PSS (SPSS) was evaluated in correlation with urodynamic parameters and size of the prostate in patients with benign prostatic enlargement.

Methods:

Sixty-two male out-patients aged 67 (mean) plus and minus 6.5 (standard deviation) years who had lower urinary tract symptom without treatment were enrolled in this study. SPSS consists of ten questionnaires : retardation, reduced stream, incomplete emptying, strain to start and/or to continue urination, frequency, nocturia, urgency, urge incontinence, protraction, terminal dribble. Each symptom is graded 0 to 3 in severity.

After answering both IPSS and SPSS questionnaires, they underwent uroflowmetry (UFM), residual urine (RU) measurement, pressure flow study (PFS), and measurement of prostatic molume by transrectal ultrasonography (TRUS). Urethral obstruction grade of Schäfer's nomogram was classified into "non-obstructive" (grade 0-2), and "obstructive" (grade 3-6). Although detrusor contractility of Schäfer's nomogram is categorized into four groups, they were, in this study, categorized into two groups as "low contractility" that includes "very weak", and "weak", and "high contractility" that includes "normal", and "strong". For statistical analysis, Spearman rank correlation coefficient was used to describe correlations between IPSS or SPSS and parameters of UFM as well as prostate volume. Mann-Whitney U-test was used to compare IPSS or SPSS of two groups such as urethral obstruction category and detrusor contractility category of Schäfer's nomogram. Kruskal-Wallis test was used to compare IPSS or SPSS of three groups categorized by A/G nomogram. A P-value less than 0.05 was considered statistically significant.

Results:

Existence of prostatic adenoma were confirmed by TRUS in all patients. Mean total prostatic volume and standard deviation was 34 and 16 ml. Mean volume of the prostatic adenoma (transition zone) and standard deviation was 15 and 12 ml. SPSS significantly correlated with voided volume (VV) (P=0.005), max flow rate (Qmax) (P=0.006), average flow rate (Qave) (P=0.0002) as measured by UFM, RU

(P=0.043), total prostatic volume (P=0.007), volume of the prostatic adenoma (P=0.011), detrusor pressure at Qmax (P=0.014) as measured by PFS. SPSS was significantly different between "non-obstructive" and "obstructive" categories of Schäfer's nomogram. IPSS significantly correlated with VV (P=0.022), Qmax (P=0.042), Qave (P=0.013) as measured by UFM, but, there was no correlation with Schäfer's nomogram.

Conclusions:

SPSS proved to correlate with prostatic volume and benign prostatic obstruction confirmed by urodynamic study, comparing IPSS.