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Title: SEASONAL CHANGE OF UROFLOMETRY AND SYMPTOM SCORE IN PATIENTS WITH BENIGN PROSTATE HYPERPLASIA

Aims of Study

A patient with benign prostatic hyperplasia (BPH) sometimes complains that his lower urinary tract symptoms become worse during the winter season. In this study we tracked BPH patients over a two-year period by monitoring their uroflometry and by giving them IPSS (international prostate symptom score) and QOL (quality of life assessment index) questionnaires.

Methods

31 men who had been clinically diagnosed as BPH and treated with conventional drug therapy were studied. 29 were treated with alpha blockers and 2 received no drugs at all. To avoid medication therapy efficacy and a uroflometry learning curve, the subjects were not included in the study until at least 3 months after their treatment had begun. At the beginning of the study, the mean age of the 31 participants was 74.5 years old. The average period of treatment prior to the study was 16.7 months (median 8 months), and prior to the study uroflometry was performed an average of 11.6 times (median 6 times). Once a month from June, 1998 to September, 2000, we measured each participant's maximum flow rate (Qmax), voided urine volume (VUV) and post void residual urine volume (PVR). The subjects were also requested to undergo an IPSS and QOL every month. PVR was measured with ultrasound and uroflometries with less than 150 ml of VUV were excluded. Hot season values (June, July, August, and September) and cold season values (January, February, March and December) were then compared.

Results

Between the two seasons there were no significant differences in IPSS, QOL index, VUV or PVR, 12.7 ± 5.6 , 3.2 ± 1.0 , 230 ± 57 ml, and 43 ± 35 ml respectively in the hot season, and 12.9 ± 5.5 , 3.2 ± 1.0 , 237 ± 70 ml, and 42 ± 37 ml respectively in the cold season. Qmax during cold season (14.1 ± 5.7 ml/s) was significantly higher than during hot season (13.0 ± 4.7 ml/s).

Conclusions

It is generally assumed that IPSS and QOL index are higher in winter than in summer. Our study suggests, however, that IPSS and QOL index are almost constant if the examinations are given regularly over an extended period of time. But Qmax in winter months was significantly higher than that in summer months, suggesting that Qmax might indeed be influenced by seasonal temperature. The results of our study suggest that perhaps Qmax does not adequately describe a patient's voiding dysfunctions.