

THE ROLE OF ALPHA 1(A) ADRENOCEPTOR ANTAGONIST TAMSULOSIN FOR THE TREATMENT OF PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA: THE EFFECT OF NOCTURIA AND SLEEP QUALITY

Hypothesis / aims of study

Nocturia is considered to be the main cause of disturbance of sleep maintenance and the quality of life. We assessed the effectiveness of administering alpha 1(A)-adrenoceptor antagonist tamsulosin for the patients with lower urinary tract symptoms with nocturia on quality of sleep.

Study design, materials and methods

From January 2008 to December 2008, 180 patients with lower urinary tract symptoms were prospectively selected for this study. Study was conducted among respondents with nocturia (void/night \geq 1) (n=296), with participants completing a questionnaire on Medical Outcomes Study (MOS) sleep scale. The effectiveness of tamsulosin was assessed by analyzing the International Prostatic Symptom Score (IPSS), the bother score, the maximal flow rate (Qmax), and postvoid residual urine. The data for these parameters were acquired at baseline and after 4 weeks of treatment.

Results

The patient's population had a mean age of 57.0 years. In the patients, the mean number of void per night was 1.79 \pm 1.1, the IPSS total/bother score were 15.2 \pm 8.9 and 3.4 \pm 1.2, respectively. The clinical parameters, including the IPSS, the bother score, the Qmax and the residual urine showed significantly improved from the baseline. The change of nocturnal frequency was 0.56. For the sleep quality, the sleep problem index was significantly decreased. Among the MOS sleep scale, the subcategories of sleep disturbance, somnolence and sleep adequacy were significantly changed (p<0.05).

Interpretation of results

Alpha 1(A)-adrenoceptor antagonist, tamsulosin, significantly improved sleep quality as well as nocturia. Even the small change of nocturnal frequency can affect largely the associated sleep quality.

Concluding message

Our finding confirms those of studies reporting that sleep disorders are commonly associated with nocturia. Even the small change of nocturnal frequency can affect largely the associated sleep quality.

References

1. Umlauf M, Jurtzer E, Valappil T, Burgio K, Pillion D, Goode P. Sleep-disordered breathing as a mechanism for nocturia: Preliminary findings. *Ostomy/Wound Manage* 1999; 45: 52–60
2. Asplund R, Aberg H. health of the elderly with regard to sleep and nocturnal micturition. *Scand J Prim Health Care* 1992;10:98-104
3. Middlekoop HA, Smidde-van den Doel DA, Neven AK, Kamphuisen HA, Springer CP. Subjective sleep characteristics of 1485 males and females aged 50--93: Effects of sex and age, and factors related to self-evaluated quality of sleep. *J Gerontol: Med Sci* 1996; 51:108–115

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Is this study registered in a public clinical trials registry?	Yes
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Is this a Randomised Controlled Trial (RCT)?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	This is an observation clinical study.
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes