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## DOES ALPHA BLOCKING AGENT HAVE A ABILITY TO NORMALIZE SLEEP DISORDER?

### Hypothesis / aims of study

Nocturia is one of the most bothersome symptoms for elderly people. It consists of dysuria and sleep disorder. But it is not clear which is the main factor for this problem.

The first aim of this study was to assess the relationship between dysuria and sleep disorder. The second one is to determine whether or not an alpha blocking agent (tamsulosin) for BPH can improve sleep quality.

### Study design, materials and methods

68 patients with Benign Prostatic Hyperplasia (BPH) (52 -- 85 years old: average age 68.9) and 273 patients without BPH (19 -- 88 years old: average age 60.8) were included in this study. Patients with neurogenic bladder, urinary tract infection and circadian rhythm sleep disorder were excluded. Patients who were taking drugs that affect bladder function were also excluded. The International Prostate Symptom Score (I-PSS), Benign Prostatic Hyperplasia Impact Index (BPH-II), and quality-of-life score (QoL-S) and the Pittsburgh Sleep Quality Index (PSQI: Normal is less than 5.5) were then administered to all the patients by the same physician at the first visit to our outpatient clinic. PSQI has proved to have a faithful validity for the assessment of patients with sleep disorder. An alpha blocking agent (tamsulosin) was given to all the patients with BPH. Patients with BPH were re-evaluated with I-PSS, BPH-II, QoL-S and PSQI at 4 weeks after the treatment.

Results: In the patients without BPH, there was a positive correlation with quality of urination (I-PSS, BPH-II, QoL-S) and PSQI.  $p > 0.01$  (Spearman). In the patients with BPH, quality of urination was improved by the treatment of tamsulosin. The results of PSQI had improved from 6.5 to 5.0.  $p > 0.01$  (Wilcoxon t-test). It is said that the result of PSQI of a normal person is less than 5.5.

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### Interpretation of results

There was a positive relationship between dysuria and sleep disorder. But in the patients with BPH, an alpha blocking agent has an ability to normalize sleep disorder.

### Concluding message

Causes for sleep disorder are manifold. Furthermore, the pathophysiology of nocturia is a big enigma. At least, dysfunction of the lower urinary tract can cause sleep disturbance. We can improve sleep quality by treatment of dysuria.