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## COMPARISON OF SLEEP QUALITY BETWEEN OVERACTIVE AND NON-OVERACTIVE BLADDER IN FEMALE NOCTURIA PATIENTS

### Hypothesis / aims of study

Nocturia in female is a common symptom caused by overactive bladder(OAB) and induce sleep disturbance leading to daytime fatigue. However, nocturia could be a bothersome condition in patients without OAB. We analysed data taken from frequency/volume chart from the point of view of nocturia (>1/night) in female patients. Pittsburgh Sleep Quality Index(PSQI) and frequency/volume chart of 3 consecutive days were used as analytic tools.

### Study design, materials and methods

83 female patients who had nocturia more than one time per night were included in this study. Frequency/volume chart and scores of sleep quality(0:very good, 1:fairly good, 2:fairly bad, 3:very bad) measured by PSQI were taken and data was statistically analysed. Patients whose sleep could be disrupted by pain, insomnia, snoring, noise, etc. revealed on questionnaire of PSQI were excluded.

### Results

Among 83 patients, 48(57.8%) were nocturnal polyuria, 8(9.6%) were 24-hr polyuria(>2,500 ml) Mean voiding frequency per 24 hours was  $11.2\pm 3.8$ , nocturia was  $2.3\pm 1.2$ , and PSQI score was  $1.9\pm 0.7$ . In nocturia-related sleep quality, PSQI score were  $1.72\pm 0.64$  in the group of nocturia<2, and  $2.11\pm 0.66$  in nocturia $\geq 2$ ( $p=0.05$ ). Considering nocturnal polyuria, PSQI were  $2.00\pm 0.75$  in nocturnal polyuria group compared with non-nocturnal polyuria group( $1.86\pm 0.62$ ,  $p=0.326$ ). 58(69.9%) had decreased nocturnal bladder capacity, and their PSQI were  $2.04\pm 0.69$  compared with  $1.68\pm 0.64$ ( $p=0.019$ ).

In 52(62.7%) with OAB, 29(55.8%) had nocturia<2, and 23(44.2%) had nocturia $\geq 2$ . PSQI score in nocturia with OAB group( $1.92\pm 0.74$ ) was similar with that( $1.93\pm 0.84$ ) in non-nocturnal polyuria group( $p=0.985$ ). In the group of young(under 40's) and elderly(over 60's) ages, PSQI were  $2.09\pm 0.76$  in young and  $1.88\pm 0.72$  in elderly group( $p=0.311$ ).

### Interpretation of results

The more number of nocturia, the poorer quality of sleep, and decreased nocturnal bladder capacity gave negative effects on sleep quality. However, presence of nocturnal polyuria or OAB or elderly did not give the worse effects on sleep quality.

### Concluding message

These data demonstrated that treatments for nocturia should focus on the number and nocturnal bladder capacity.

### Disclosures

**Funding:** non **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective study **Helsinki:** Yes **Informed Consent:** No