548

Matsumoto Y[1], Hirayama A[2], Torimoto K[2], Sanma S[1], Fujimoto K[2], Hirao Y[2]
1. *Nara Prefectural Nara Hospital,* ***2.*** *Department of Urology, Nara Medical University*

THE IMPACT OF NOCTURIA WITH OVERACTIVE BLADDER SYNDROME ON QUALITY OF LIFE: FINDINGS FROM THE FUJIWARA-KYO STUDY.

Hypothesis / aims of study

Many epidemiological studies have demonstrated that nocturia is the most bothersome of all lower urinary tract symptoms (LUTS), and that nocturia not only reduces quality of life (QOL) but also increases morbidity and perhaps mortality. Although the decrease in QOL is generally thought to be associated with increased nighttime frequency, few reports have evaluated how each cause of nocturia affects QOL.

Overactive bladder (OAB) syndrome, in which functional bladder capacity decreases, is one of the main causes of nocturia. In the Fujiwara-kyo study, we investigated the impact of nocturia with or without OAB on QOL in a community-based study.

Study design, materials and methods

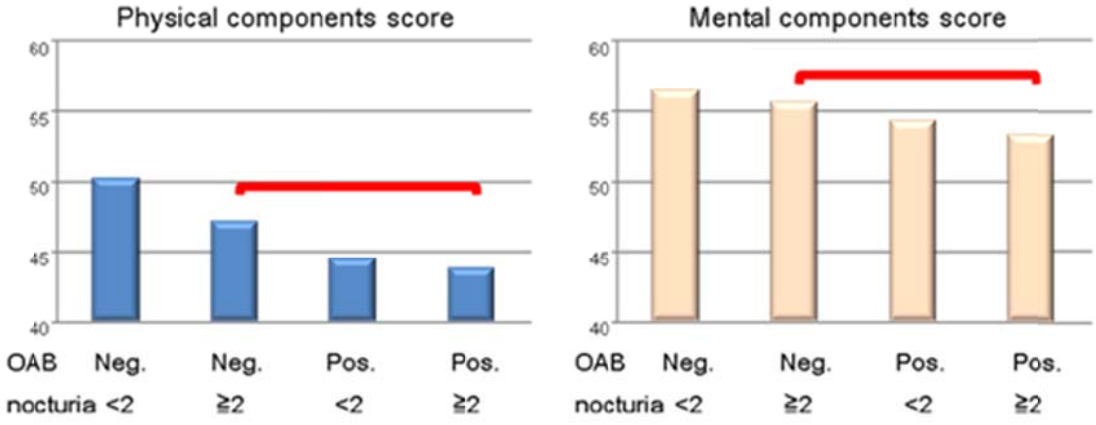
The study enrolled residents of Nara, Japan, who were aged 65 years or over and capable of walking unassisted. We investigated past history, present illness, physical examination, blood examination and responses on a series of questionnaires consisting of 424 questions concerning physical and mental status including International Prostate Symptom Score (IPSS), Overactive Bladder Symptom Score (OABSS), 36-item short-form health survey (SF-36) and Pittsburgh Sleep Quality Index (PSQI). Responses to all questionnaires were collected by a self-administered questionnaire survey.

Student's t-test or one-way ANOVA test was used to compare differences between groups. Multivariate logistic regression analysis was used to evaluate the effects on QOL and quality of sleep. Differences were considered significant at a p-value less than 0.05.

Results

The cohort included 2,174 men and 2,253 women. Mean subject age was 72.6 ± 5.3 years (72.7 ± 5.4 years in men and 72.5 ± 5.3 years in women). Finally, 3,941 (89%) subjects were analyzed after 486 were excluded due to incomplete data. The average nighttime frequency was 1.7 ± 1.0 (1.8 ± 1.1 in men and 1.4 ± 0.9 in women). Nighttime frequency tended to increase with age. There were 738 (19%) subjects with OAB (12% of OAB dry and 7% of OAB wet). The prevalence of OAB increased with nighttime frequency. In subjects with nocturia, the scores for physical and mental components on SF-36 decreased as nighttime frequency increased. In subjects with OAB, physical and mental components scores on SF-36 decreased ($p<0.0001$). In subjects with nocturia (2 or more) and OAB, the scores for physical and mental components on SF-36 were significantly lower than those of subjects with nocturia (2 or more) but without OAB ($p<0.05$). On multivariate analysis, both nocturia (2 or more) and OAB were independent risk factors for a decrease of scores for physical and mental components on SF-36 ($p<0.0001$).

Figure. 1: SF-36 in nocturia with or without OAB



Interpretation of results

a) Prevalence of OAB increased with nighttime frequency.
b) Both nocturia and OAB decreased QOL.
c) Nocturia with OAB caused significantly lower QOL than that without OAB.
d) Nocturia and OAB were independent risk factors for a decrease in QOL.

Concluding message

Nocturia is one of the most bothersome symptoms and decreases QOL. OAB increases nighttime frequency in patients with nocturia, leading to a further decrease in QOL. Therefore, treatment for OAB can significantly improve QOL in patients with nocturia.

References

1. Neurourol Urodyn (2010) 29; 623-628

Specify source of funding or grant	**N/A**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**The ethics committee of Nara Medical University**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**