

RISK FACTORS OF OVERACTIVE BLADDER AND FACTORS AFFECTING THE SEVERITY OF OVERACTIVE BLADDER SYMPTOMS IN KOREAN WOMEN WHO USE PUBLIC HEALTH CENTERS

Hypothesis / aims of study

Overactive bladder (OAB) is defined as a feeling of urinary urgency with or without urge incontinence, usually with urinary frequency and nocturia, but without pathologic or metabolic factors that would explain the symptoms. The prevalence rate of OAB has been reported in a wide variation from as low as 2% to as high as 53%. Although the risk factors of OAB have not been fully identified, limited studies suggest that age, obesity, alcohol, diabetes mellitus, and history of stroke are strong risk factors of OAB. Despite these wide references, the actual circumstances of OAB in Korean women are not well studied. The purpose of the study was to investigate the prevalence, risk factors of OAB and the factors affecting the severity of OAB symptoms.

Study design, materials and methods

A population-based cross-sectional questionnaire survey was adopted. The target population consisted of women aged 18-80 years who use public health centers. A total of 822 interviews were conducted between April 2014 and April 2015. The questionnaire was composed of 16 questions about urinary symptoms, 14 questions about self-treatment and the use of complementary and alternative medicine, and 21 questions about socio-demographic characteristics. The diagnostic criterion for OAB is a total OAB symptom score (OABSS) of 3 and more, with an urgency score of 2 or more. The chi-square test and t-test were used for the analysis of categorical variables and continuous variables, respectively. To know the risk factors and factors affecting the severity of OAB, the significant variables were identified by univariate logistic regression analysis, followed by the multivariate logistic regression analysis. Thereafter, we found the significantly associated factors through a backward stepwise elimination of the variables

Results

The study revealed that 157 participants (19.3%) were diagnosed with OAB, of whom 10.7%, 8.1%, and 0.7% had mild, moderate, and severe OAB symptoms, respectively. In addition, the prevalence of OAB increased with age. Among all the participants, 39.1% had stress incontinence, among them 32.7% had OAB as well. The daily and sexual quality of life of the participants diagnosed with OAB were lower than those of the non-OAB group, and as the severity increased, their daily and sexual quality of life were further affected. For the treatment of urinary symptoms including frequency, nocturia, urgency, urgent urinary incontinence, and stress urinary incontinence, 7.0% of the participants had received medical treatment and 2.7% underwent physical treatment such as magnetic chair and biofeedback, while 47.4% had tried self-treatment with Kegel exercise.

The identified variables showing statistically significant differences in OAB group included age, weight, waist circumference, menopause, current employment, current smoking, history of incontinence surgery, and diagnosis of hypertension, diabetes, hyperlipidemia and metabolic syndrome risk group (who have at least two characteristics among waist $\geq$ 32 inches, hypertension, diabetes, and hyperlipidemia). In multivariate logistic regression analysis, participants who are elderly, current smokers, and those with hyperlipidemia, cardiovascular, and renal disease showed statistically significant higher risk group for OAB.

The identified variables showing statistically significant differences for factors affecting severity of OAB symptoms included nocturia, stress urinary incontinence, incontinence operation history, medical or physical treatment for urinary symptom, age, BMI, waist circumference, vaginal delivery history, educational status, job, menstrual status, diagnosis with hypertension, diabetes, hyperlipidemia and rheumatoid disease and medication for hypertension, diabetes, hyperlipidemia, bladder disease. In multivariate regression analysis, the variables of age, current smoker and hyperlipidemia were shown to be correlated with the severity of OAB

Interpretation of results

The significant risk factors of OAB were identified as age, current smoking, hyperlipidemia, cardiovascular and renal disease, whereas, the factors affecting the severity of OAB were age, current smoking, and hyperlipidemia

Concluding message

Those who have risk factors and factors affecting severity of OAB should be educated to increase OAB awareness and act of urinary health promotion. In addition, this improved understanding of OAB can provide us with a more scientific approach regarding the prevention and a management program of OAB as part of the health care policy

Disclosures

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