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COMPARISON OF LOWER URINARY TRACT SYMPTOMS (LUTS) BETWEEN MEN UNDERGOING SCREENING FOR PROSTATE DISEASE AND OUTPATIENTS WITH LUTS

Hypothesis / aims of study
Lower urinary tract symptoms (LUTS) are common in elderly men, and increase with age. Although these symptoms can have a significant impact on quality of life, not all men with LUTS seek medical care. Apart from other factors, such as economic status and education, specific symptoms and symptom severity may cause men to seek out medical care. This study compared LUTS between men who participated in community-based screening and men who visited the hospital for their LUTS, and investigated which symptoms influence medical-care-seeking behavior.

Study design, materials and methods
We determined the international prostate symptom score (IPSS) and quality-of-life (QOL) score of 100 consecutive male outpatients with LUTS, aged 50 to 79 years (group 1), and 198 participants in screening for prostate disease in Chunchon, Korea (group 2). Group 2 was age- and education-matched with group 1, and none of the subjects in group 2 had ever seen a doctor for their LUTS before the screening. There were no significant differences between the two groups with regard to income, age, and education level. We stratified each group into three age categories (50-59, 60-69, and 70-79 years), and then compared the IPSS and QOL scores between the two groups for each age category.

Results
In the subjects aged 50-59 years, each score for seven items and the total IPSS score of group 1 were higher than for group 2 (all $p<0.001$), and the QOL score of group 1 was also higher than group 2 ($p<0.001$). In men aged 60-69 years, there were no significant differences between the two groups in the mean scores of items 5 and 6 (weak stream ($p=0.206$) and straining ($p=0.173$), respectively) and the results of a logistic regression analysis revealed that items 5 and 6 were not associated with medical-care-seeking behavior. However, in this age group, the scores of every other item, the total IPSS score, and the QOL score were significantly higher in group 1 than in group 2. By contrast, in the subjects aged 70-79 years, there were no statistical differences for any of the seven items of the IPSS (all $p>0.05$). Only QOL score was significantly higher in group 1 than group 2 ($p=0.005$). In men aged 70-79 years, although not significant, the mean score of item 7 (nocturia) of group 1 was higher than that of group 2 (2.791 vs 2.167, $p=0.055$), and a score for item 7 of at least 2 (*i.e*., nocturia≥2/night) was positively associated with medical-care-seeking behavior (OR=4.198, 95% CI: 1.096 to 16.083, $p=0.036$). A linear regression analysis identified nocturia as a variable influencing QOL in this age decade (beta=0.584, $p<0.001$).

Interpretation of results
In our study, the difference in the IPSS and QOL scores between the two groups decreased as the age of the subjects increased. In particular, among the subjects aged 70-79 years, there were no significant differences between the two groups in the mean scores of the seven IPSS items. These results might be explained by the common perception of elderly men with regard to LUTS, *i.e.,* the development of LUTS is a part of the normal aging process and is not a serious problem. However, it appears that nocturia can cause significant QOL impairment and influences the health-care-seeking behavior of men, even those aged 70-79 years.

Concluding message
In Korean elderly men aged 50-69 years, the severity of LUTS and QOL impairment appear to affect the medical-care-seeking behavior, and both storage symptoms and voiding symptoms are influential. By contrast, in men aged 70-79 years, nocturia was the only one of the seven IPSS items that had a significant influence on health-care-seeking behavior.

References
1. Urology (2003) 62; 266-272
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Specify source of funding or grant	**None**
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	**IRB of Clinical Research Institute of Kangwon National University Hospital**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**