

## ASSOCIATION OF LOWER URINARY TRACT SYMPTOMS WITH HEALTH-RELATED QUALITY OF LIFE IN AN OLDER POPULATION

### Hypothesis / aims of study

Lower urinary tract symptoms (LUTS) are a major health concern in aging societies in terms of their prevalence and quality-of-life consequences. With the likelihood of coexisting chronic conditions a comprehensive overlook on the problem is called for. Based on prior research, urgency symptoms are known to be among the most bothersome LUTS in older men and women (1). Little data are available on the generic quality-of-life outcomes of LUTS in random older populations. The aim of this study was to examine the association of LUTS with or without urgency symptoms with the physical, social and emotional dimensions of health-related quality of life in an unselected older population when adjusted for comorbid conditions.

### Study design, materials and methods

A population-based cross-sectional survey was conducted involving 343 people (159 men and 184 women) aged 70 years and over. The respondents were inquired after urgency, urgency incontinence, stress incontinence and voiding symptoms defined as weakened and/or intermittent stream. The perceived inconvenience caused by LUTS was assessed with a single question if at least one of the symptoms was reported. LUTS were categorized as no LUTS and LUTS with or without urgency symptoms. Poor self-reported health (poor vs moderate or good), activities of daily living disability (difficulties in at least one of the basic ADL functions vs no difficulties), low social activity (attending two or less events vs 3 or more) and depressive mood (scoring at least 2 vs maximum 1 in the short form of the Geriatric Depression Scale [GDS-5]) were used as the quality-of-life outcomes. In the preliminary analyses, age and gender adjusted and multivariate logistic regression models with odds ratios (OR) and 95 % confidence intervals (CI) were conducted in order to examine the association of LUTS separately with each of the quality-of-life outcome variable. In the multivariate analyses, number of chronic diseases (more than 3 vs 0-3) and cardiovascular, musculoskeletal, neurological and other chronic diseases were the covariates.

### Results

Respondents with urgency symptoms were statistically significantly more likely to report inconvenience from the symptoms than respondents with non-urgency symptoms (64% vs 20 %;  $p < 0.001$ ). There was no significant difference in the inconvenience experienced between the age groups (70-79 years vs 80 years and over). In the preliminary analyses when adjusted for age and gender, LUTS with urgency symptoms were associated with poor self-reported health (OR 2.35; 95 % CI 1.06-5.20), ADL disability (OR 2.33; 95 % CI 1.10-4.92) and depressive mood (OR 7.29; 95 % CI 2.92-18.30). Non-urgency symptoms were also associated with depressive mood (OR 5.02; 95 % CI 1.97-12.82). The association of LUTS with urgency symptoms with low social activity was nearly statistically significant (OR 1.78; 95 % CI 0.99-2.19). In the multivariate analyses when comorbid conditions were also adjusted for, LUTS with or without urgency symptoms remained statistically significantly associated with depressive mood with an OR of 5.89 (95 % CI 2.28-15.22) and 3.84 (95 % CI 1.45-10.16), respectively compared with respondents reporting no LUTS. In respect of self-reported health, ADL disability and social activity those with non-urgency symptoms were in worse situation than those with no symptoms, and those with urgency symptoms worse than those with non-urgency symptoms, but these differences did not reach statistical significance in the final multivariate analyses.

### Interpretation of results

The perceived inconvenience caused by LUTS with urgency symptoms is greater than that caused by non-urgency symptoms. LUTS especially with urgency symptoms have a significant impact on the physical, social and emotional domains of quality of life. There is an

independent association between LUTS and depressive mood in older people regardless of the symptom type. However, the association seems greater if there is an urgency component.

Concluding message

The overall health-related quality of life of older individuals is affected by LUTS. Depressive mood appears to be a major determinant of reduced quality of life. A careful assessment of the mental state of older patients with LUTS is warranted.

References

- 1) Quality of life in geriatric patients with lower urinary tract dysfunction. Am J Med Sci 1997; 314:219-227.