What is the most bothersome lower urinary tract symptom? Individual and population level perspectives

Results from the FINNO Study

Kari A.O. Tikkinen1*, Rufus Cartwright2, Mika A. Ala-Lipasti3, Theodore M. Johnson, 2nd4, Teuvo L.J. Tammela3 and Anssi Auvinen5

Introduction and Objectives

• We compared the bothersomeness of various lower urinary tract symptoms (LUTS) using a population-based sample of both sexes with wide age range

Methods

• We performed a population-based mailed questionnaire study among 6,000 Finnish subjects aged 18 to 79 years randomly identified from the Finnish Population Register
• We used the DAN-PSS questionnaire for the assessment of occurrence and bother of 12 different LUTS1,2
• Hesitancy, weak stream, incomplete emptying, straining, increased daytime frequency, nocturia, urinary urgency, urgency urinary incontinence, pain/burning, post-micturition dribble, stress urinary incontinence and overflow/leaking incontinence
• In the DAN-PSS, both occurrence and bother of LUTS are classified on a four-point scale: occurrence on a scale “never”, “rarely”, “often”, “always” for most symptoms; and bother on a scale: “none”, “small”, “moderate”, “major” for all symptoms
• Among symptomatic subjects, the proportion of individuals with at least moderate bother was calculated for each symptom (individual level) (Fig. 1)
• The age-standardized prevalence of subjects with at least moderate bother was also calculated for each symptom (population level) (Fig. 2)
• To assess statistical significance, 95% confidence intervals were calculated

Results

• Out of 6,000 subjects, 3,727 (62.4%) took part; 23 were unavailable and 130 excluded (due to urinary tract infection, pregnancy or puerperium)
• The LUTS with the greatest bother burden (with 2 moderate bother) at the population level were (Fig. 2):
  1. urgency (7.9%)
  2. stress urinary incontinence (SUI) (6.5%)
  3. nocturia (6.0%)
  4. post-micturition dribble (5.8%)
  5. urgency urinary incontinence (UUI) (5.0%)
  6. daytime frequency (4.3%).
• Among symptomatic subjects, UUI was the most bothersome LUTS (Fig. 1)
• No differences between sexes in the perceived bother were found from an individual perspective (Fig. 1)
• The population bother burden from urinary incontinence was higher in women than men, and vice versa for voiding and post-micturition symptoms. (Fig. 2)

Discussion and Conclusions

• In our population-representative survey of Finnish men and women with wide age range, individuals who experience urgency urinary incontinence are more likely to rate it as moderately or very bothersome, compared with other LUTS
• At the population level, the most prevalent bothersome symptoms are post-micturition dribble, urgency and nocturia in men, and stress urinary incontinence, urgency and urgency urinary incontinence in women
• Overall, UUI is the most bothersome LUTS from the individual perspective and urgency from the population perspective

References

2. www.uta.fi/med/utkimus/utkismuorhmav/utkismuorhmav/finnosudy/
3. Tikkinen et al. J Urol 2006;175:596