

PREVALENCE AND ASSOCIATIONS OF NOCTURNAL ENURESIS AND NOCTURIA IN THE COMMUNITY

Hypothesis / aims of study

Leakage of urine at night while asleep and nocturnal urinary frequency (nocturia) are bothersome urological symptoms affecting both health and quality of life. Sleep is disturbed, with daytime sleepiness and reduced well-being as consequences (1)(3). The majority of patients with nocturia are elderly and more likely to be exposed to serious health risks since nocturia causes fatigue due to sleep deprivation, which increases the chance of traumatic injury through falling (2).

The aim of the present study was to find the prevalence and associations of these conditions in symptomatic community dwelling men and women.

Study design, materials and methods

Data from the Leicestershire MRC incontinence study Continence Nurse Practitioner (CNP) intervention trial³ were analysed for nocturnal leakage of urine while asleep and nocturnal frequency of urine. Associated factors identified by univariate analysis were entered into logistic regression to define multivariate associations. Data are presented as odds ratios and 95% confidence intervals.

Results

From the questionnaire-based survey of 3363 patients with urological symptoms in community including both sexes, the prevalence of leakage of urine at night while asleep was found to be 6.4%. In the logistic regression, controlling for age and gender, significant correlations were detected between nocturnal leakage and mobility (needing help or dependent), urgency (OR 1.34; CI 1.00 - 1.79), cystitis in last year (OR 1.44; CI 1.0 - 2.08), feeling of incomplete emptying of bladder (OR 1.75; CI 1.3 - 2.36), use of pads (OR 2.0; CI 1.49 - 2.69) and smoking (OR 1.5; CI 1.01 - 2.22).

The overall prevalence of nocturia was 46.1%. Participants with nocturia were significantly older. It was also more common in men compared with women (55.2 vs. 40.3%, p 0.0002). Nocturia was positively associated with the occurrence of incontinence at night (OR 2.20; CI 1.58-3.08), stress incontinence (OR 1.47; CI 1.09-2.00), increasing urgency of micturition (OR 1.61; CI 1.13-2.30) and increasing subjective severity of leakage. A diagnosis of multiple sclerosis significantly increased the odds of having nocturia by 7.8 (CI 1.5; 40.2).

Interpretation of results

This study identified the prevalence of these conditions in symptomatic men and women with urological problems in the community. The above results signify that nocturia is a very common urological symptom and nocturnal leakage of urine is also prevalent more than it was expected. Presence of daytime incontinence, urgency and urinary tract infection are found to be important associated risk factors for nocturia and nocturnal enuresis. Factors like smoking and restricted mobility are also found to be significantly associated with nocturnal enuresis.

Concluding message

Nocturia is a poorly reported and infrequently diagnosed condition that causes significant distress to a large number of people. It is one of the most common causes of chronic poor sleep; this in turn contributes to development of psychological and somatic disease. Support for elderly dependent people and proper management of individual risk factors such as daytime incontinence, urgency and urinary tract infection might be beneficial to patients with nocturnal urinary problems.

References

- 1.Nocturia, a common, but overlooked problem. Ugeskrift for Laeger. 164(33): 3849-52, August 2002
- 2.Nocturia.The Journal of Urology. 163(1): 5 January 2000
- 3.Nocturnal incontinence in women: a hidden problem. The Journal of Urology. 164(3): 764-766, September 2000