

## FREQUENCY, KEY FACTORS OF NOCTURIA AND ITS ASSOCIATION WITH THE QUALITY OF LIFE IN INCONTINENT WOMEN

### Hypothesis / aims of study

Nocturia is one of the most prevalent urological symptoms [1]. The aim of the present study was to assess the frequency, key factors of nocturia (waking at night one or more times to void) and its association with the quality of life in incontinent women.

### Study design, materials and methods

277 patients  $\geq 18 \leq 55$  years of age with complaints of urinary incontinence were analysed according to a specific protocol: urodynamic testing, transperineal ureterovesical segment ultrasonography, a 3-day frequency-volume (FV) chart. Nocturia was defined as two or more micturitions per night calculated from the FV chart. Night was defined as the period of sleep. Subjects had to fill in a standardized nocturia-related quality of life questionnaire as well.

### Results

According to a specific protocol 143 women had stress incontinence, 43 - urge incontinence and 91 - mixed incontinence. The overall prevalence of nocturia was  $34.7 \pm 2.9\%$  (96 women):  $24.5 \pm 3.6\%$  in stress incontinence,  $46.5 \pm 7.6\%$  in urge incontinence ( $p < 0.01$ ) and  $45.1 \pm 5.2\%$  in mixed incontinence ( $p < 0.01$ ). The nocturics were classified into one of the responsible pathophysiologic categories [1]: nocturnal polyuria in  $30 \pm 4.4\%$  (33 women), a low functional bladder capacity in  $12.5 \pm 3.4\%$  (12 women), a combination of both in  $28.1 \pm 4.6\%$  (27 women), polyuria in  $25.0 \pm 4.4\%$  (24 women) of the cases. The frequency of poliuriya (24-urine volume of 40 mL/kg bodyweight or above) was  $7 \pm 2.1\%$  in stress incontinence,  $11.6 \pm 4.9\%$  in urge incontinence and  $9.9 \pm 3.1\%$  in mixed incontinence ( $p > 0.05$ ). The frequency of nocturnal polyuria (nocturnal volume / 24-h urine volume of 0.20 or above) was  $17.5 \pm 3.2\%$  in stress incontinence,  $27.9 \pm 6.8\%$  in urge incontinence and  $25.3 \pm 4.6\%$  mixed incontinence ( $p > 0.05$ ). Women with stress incontinence give the most negative assessment to their quality of life.

### Interpretation of results

Nocturia is common symptom in incontinent women. Nocturia is more often in urge incontinence ( $p < 0.01$ ) and mixed incontinence ( $p < 0.01$ ) than in stress incontinence. The frequency of nocturnal polyuria and polyuria as nocturia factors is the same in stress, urge and mixed incontinence. Women with stress incontinence give the most negative assessment to their quality of life.

### Concluding message

Nocturia is one of the troublesome symptoms of Lower Urinary Tract Symptoms, it significantly compromises sleep and quality of life. This study shows that the majority of all incontinent patients with nocturia have changes in renal function: in  $62.5 \pm 4.9\%$  of nocturic patients nocturia is due to nocturnal polyuria and in  $25.0 \pm 4.4\%$  to polyuria.

### References

1. Clinical guidelines for nocturia. Committee for Establishment of the Clinical Guidelines for Nocturia of the Neurogenic Bladder Society. *Int. J. Urol.* 2010;17(5):397-409.

### Disclosures

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