

FUNCTIONAL EFFECTS OF CIGARETTE SMOKING ON THE LOWER URINARY TRACT: A URODYNAMIC REVIEW OF CASES

Hypothesis / aims of study

This study aims to understand the impact of cigarette smoking on the functioning of the lower urinary tract by evaluating the urodynamic findings in female smokers.

Study design, materials and methods

Data from 11678 women, who underwent urodynamic testing from Jan 1991 to Dec 2009 in a tertiary referral centre in the UK, was analyzed retrospectively. Women who reported cigarette smoking were included in the study group. Urodynamic testing and interpretation of results were done in accordance with the recommendations of the International Continence Society (1).

Results

21.2% (2476) of women with bothersome LUTS reported smoking cigarettes. Female smokers significantly complained of overactive bladder symptoms (OR= 1.14, P= 0.006). Secondary nocturnal enuresis (OR= 2.26, p< 0.001) and coital incontinence (OR= 1.14, p< 0.001) were the other two significant complaints. Detrusor overactivity (DO) (OR= 1.42, p< 0.001) and detrusor overactivity incontinence (DOI) (OR= 1.42, p< 0.001) were the most significant urodynamic findings. An increasing trend in the prevalence rates of stress urinary incontinence (SUI), SNE and urodynamically proven stress incontinence (UDSI) was noted with an increasing number of cigarettes smoked, but smoking wasn't shown to be significantly associated with SUI (OR= 1.08, p= 0.213) or UDSI (OR= 0.86, p= 0.001).

Interpretation of results and Conclusions

Cigarette smoking is associated with overactive bladder symptoms, secondary nocturnal enuresis and coital incontinence. DO and DOI (but not SUI or UDSI) are the most significant urodynamic findings.

References

1. Schäfer W, Abrams P, Liao L, Mattiasson A, Pesce F, Spangberg A, et al. Good urodynamic practices: Uroflowmetry, filling cystometry, and pressure-flow studies. *Neurourol Urodyn*. Wiley Online Library; 2002;21(3):261–74.

Disclosures

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