

DOES MATURATION OF BLADDER/BOWEL SPHINCTER CONTROL IN CHILDHOOD AFFECT VOIDING HABITS IN ADULT LIFE? A QUESTIONNAIRE-BASED STUDY IN 130 YOUNG ADULTS

Hypothesis / aims of study

Significant childhood bladder and bowel symptoms along with a higher report of adult urge and bowel dysfunction have already been found in adolescents and adults with nocturnal enuresis [1].

The purpose of this study is to contribute at further determining whether the maturation process of bladder/bowel sphincter control during childhood has an impact on the voiding habits of early adulthood.

Study design, materials and methods

A self-construct questionnaire was used for carrying out this study. The questionnaire was answered by 130 young university students (84 men, 48 women), aged 18 to 27 years (mean= 21,32 years).

The questionnaire consisted of three parts: a) demographic-somatometric data, b) information on the maturation process of sphincter control of the students and their families and c) information about their voiding habits during adult life and their various disorders. The data extracted were statistically analyzed with the SPSS® (Ver.14) software.

Results

Sphincter control occurs earlier during the day than during the night, regardless of gender. Girls restored earlier than boys both diurnal (p=0,022) and nocturnal (p=0.045) sphincter control (bladder and bowel).

Referring to childhood nocturnal enuresis, students with episodes more than once a week had a possible genetic predisposition (enuretic parents) (p=0.031). These students also reported frequency at a statistically significant level (p=0.012).

In addition, students with urgency - urge incontinence during their childhood and early adolescence more than once a week, reported frequency in adult life (p=0.003). Unexpectedly, these students also reported more often stress incontinence (p=0.013).

Urge incontinence in adult life was found statistically related to weekly or more frequent episodes of nocturnal enuresis during childhood (p=0.047).

Women reported episodes of stress incontinence and frequency at statistically higher rates compared to men (p=0.001). Also, young men reported dysuria at higher rate compared to women.

Interpretation of results

The statistically significant correlation between nocturnal enuresis in students and their parents imply hereditary predisposition (genetic impact) as it has already been pointed out in the past [2].

The analysis of the results of the current study support the hypothesis that nocturnal enuresis and urgency or urge incontinence during childhood and early adolescence correlates positively with the presence of irritative symptoms (frequency, urgency and/or urge incontinence) during adult life. This implies persistent bladder overactivity.

Surprisingly students with urgency/urge incontinence during childhood and early adolescence presented with higher rates of stress incontinence

Concluding message

Sphincter control occurs earlier during the day than during the night, regardless of gender while women restore both diurnal and nocturnal voiding control earlier than men. Lower urinary tract symptomatology seems to originate in early childhood and may be related to delayed maturation of the mechanisms involved in bladder/sphincter control.

The symptom of stress incontinence seem to have a statistically significant difference between women and men surprisingly early in adult life.

Finally, young men seem to experience dysuria at a higher rate in comparison to women, probably due to the onset of sexual activity and the concomitant infections of the prostate.

References

1. J. Urol. (2006) 176; 1771-1775
2. J. Urol. (2004) 171; 2545-2561.

FUNDING: No funding or grant

HUMAN SUBJECTS: This study did not need ethical approval because All the subjects of the study completed the questionnaire anonymously and at their own free will with no impact on their health or their personal data but followed the Declaration of Helsinki Informed consent was obtained from the patients.