Neuropsychological functioning is associated with characteristics of monosymptomatic nocturnal enuresis

C. Van Herzeele¹, K. Dhondt², A. Raes¹, A.-L. Groen¹, S. Roels³, P. Hoebeke¹ and J. Vande Walle¹

¹Pediatric Nephrology/Urology, University Hospital Ghent, Belgium
²Child Neurology & Metabolism, Pediatric Sleep Center, University Hospital Ghent, Belgium
³Data-Analysis, University Ghent, Belgium

Introduction

In children with monosymptomatic nocturnal enuresis (MNE) associated with nocturnal polyuria (NP) this study aims first to investigate which psychological problems are present. The second aim is to explore whether these psychological problems are related to specific characteristics of enuresis: fluid intake, bladder volume, number of wet nights and number of nights with nocturnal polyuria.

Material and methods

Children aged 6 - 16 years referred to tertiary care diagnosed with MNE associated with NP are included in this multi-informant (child, parent, teacher) – multi-method study (questionnaires, clinical interviews, neuropsychological testing).

Results

Positive correlation Negative correlation

Fluid intake
Externalizing problems* • Self-esteem*
• Auditive memory*
• Sustained attention*

Bladder volume
• Anxiety/depression symptoms*
• Spatial recognition memory**
• Attention problems**
• Social problems*
• Orderly/tidiness problems**
• Inhibition problems*
• Auditive memory*

N wet nights
• Social problems*
• Anxiety/depression symptoms*

N nights with NP
• Behavior regulation problems**
• Orderly/tidiness problems*

• Physical QoL*
• Overall planning accuracy*

*p<.05; **p<.01

Conclusion

Children experience problems in daytime functioning and emotional wellbeing in relation to their wetting problem at night. Not only night-time symptoms of enuresis have an influence on the child’s function and emotional wellbeing, also daytime characteristics such as fluid intake or bladder volume are of concern. Further research is necessary to clarify this.