

COMORBIDITY BETWEEN NOCTURNAL ENURESIS WITH NOCTURNAL POLYURIA, COGNITIVE DYSFUNCTION /ATTENTION DEFICIT HYPERACTIVITY DISORDER AND RESTLESS LEGS SYNDROME?

Hypothesis / aims of study

There is a comorbidity and a possible causality between nocturnal enuresis (NE), sleep disorders and attention deficit-hyperactivity disorder (ADHD), as suggested by CK Yeung, a theory that has not yet been confirmed, although we found some correlation in an extremely therapy resistant population. If the mismatch between nocturnal diuresis/functional bladder volume, resulting in enuresis has a negative effect on cognitive function and sleep characteristics, then an effective anti-enuretic therapy should ameliorate these comorbid symptoms.

This prospective study evaluate the beneficial impact of desmopressin melt on sleep, ADHD-symptoms, cognition, quality of life and self-esteem in a random enuresis-population.

Study design, materials and methods

33 patients aged 6-16 years with MNE according to the ICCS criteria, who experience at least 4/7 wet days with proven nocturnal polyuria(NP), defined as nocturnal diuresis >100% bladder volume for age. Patients are tested before the start of desmopressin melt and 6 months later. It is a multi-informant multi-method study, using polysomnography, questionnaires, interviews and neuropsychological testing. Results at screening visit are now available.

Results

Patients have a significantly disrupted sleep, 29 of 33 (87,88%) children had greater than 5 periodic limb movements per sleep hour (PLMS index). The PLMS index ranged between 3.6 and 23.3, mean 10.82 +/- 4.83. 9.1 % were diagnosed with the full syndrome of ADHD, 3% with the ADHD hyperactive/impulsive subtype and 18.2% met the criteria of the ADHD inattentive subtype. In total 10 of the 33 (30.3%) children were diagnosed with ADHD.

Interpretation of results

The preliminary results of the screening data reveal increased prevalences of both PLMS index and ADHD in children with NP in a population of nocturnal enuresis. Although there might be a selection bias of the recruitment in a tertiary study-population, patients did not have the clinical history of therapy resistance as in previous reports.

Concluding message

The preliminary results of the screening data reveal increased prevalences of both PLMS index and ADHD in children with NP in a population of nocturnal enuresis.

Disclosures

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