Children with nocturnal enuresis and attention deficit hyperactivity disorder: a separate entity?

Larisa Kovacevic, Cortney Wolfe-Christensen, Aliza Rizwan, Hong Lu, Yegappan Lakshmanan

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Methods
Data on all consecutive children seen with primary NE and ADHD and age- and gender-matched children with NE without ADHD over the course of 2 years were extracted from our database. Controls were identified using a random number generator to choose patients within each age/gender group. Changes in Dysfunctional Voiding Scoring System (DVSS) and Bristol scores were assessed before and after treatment for NE using repeated measures ANOVAs. Number of weekly wet nights was compared between the groups before and after the treatment of enuresis. Children with more than a 50% decrease in number of wet nights per week were categorized as responding to treatment.

Results
Compared with controls, ADHD children (N=95) had significantly more severe voiding symptoms, NE and constipation (Table). No significant differences were found between children on ADHD medication (63.2%) and those who were not on ADHD medication (36.8%) on any of the demographic and pre-treatment clinical parameters. Similar enuretic response rates to behavioral modification alone were seen in both study (13.5%) and control (12.8%) groups (p=0.73). Response to pharmacological treatment was seen in nine patients with ADHD (42.9%) and in six (20.7%) controls, with pharmacological intervention being significantly more effective than behavioral modification for patients with ADHD (p=0.012). Additionally, no difference was found between ADHD patients on and off ADHD medication in terms of response to enuresis treatment.

Conclusion
In children with primary NE, the presence of ADHD was associated with more severe NE, voiding symptoms and constipation. The severity of voiding symptoms and/or NE was unrelated to the use of stimulant medication. The response to behavioral modification was comparable in both groups. However, patients with ADHD were significantly more responsive to medication for NE compared with behavioral modification, indicating a possible benefit for earlier pharmacological treatment for enuresis in this population subgroup.