High Risk of Sleep Disordered Breathing in the Enuresis Population

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Purpose

Enuresis is 1 of the most common complaints facing pediatric urologists and it has significant implications with respect to quality of life. Although the pathophysiology is incompletely understood, there is growing evidence that sleep disordered breathing in children, including obstructive sleep apnea, has a fundamental role. There are also potentially fundamental differences between monosymptomatic enuresis, which may be a sleep disorder, and nonmonosymptomatic enuresis, which may relate to a primary bladder storage problem. We prospectively evaluated the incidence of obstructive sleep apnea in patients with enuresis and analyzed differences between patients with monosymptomatic and nonmonosymptomatic enuresis.

Materials and Methods

A total of 69 children with enuresis were given 3 validated questionnaires to complete, including the Dysfunctional Voiding and Incontinence Symptom Score, the Obstructive Sleep Apnea Quality of Life survey and the Modified Pediatric Sleep Questionnaire. The Dysfunctional Voiding and Incontinence Symptom Score quantifies patient dysfunctional voiding habits. The Obstructive Sleep Apnea Quality of Life survey evaluates patient quality of life in regard to obstructive sleep apnea and its effects. Modified Pediatric Sleep Questionnaire results describe the severity of patient sleep disturbances.

Results

The mean Obstructive Sleep Apnea Quality of Life Survey score was 43 and 54% of patients had positive Modified Pediatric Sleep Questionnaire results, indicating that obstructive sleep apnea was prevalent in our population. Those with enuresis and daytime incontinence were significantly more likely to have sleep disordered breathing than those with monosymptomatic enuresis ($p < 0.05$).

Conclusions

Our study confirms the link between sleep disordered breathing and enuresis. All pediatric health care providers should be aware of this risk. The risk may be magnified in patients with concomitant daytime incontinence.