

Enuresis in children with sleep apnea

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Abstract

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Objectives To test the hypothesis that the presence of nocturnal enuresis is related to the severity of sleep apnea, we examined the relation between the Respiratory Disturbance Index (RDI, apneas plus hypopneas per hour of sleep) and the presence and severity of enuresis. **Study design** All children 4 years of age and older who were referred to our sleep center for suspected sleep disordered breathing (SDB) were asked whether and how frequently they currently wet the bed. All patients underwent full overnight polysomnography (PSG). The relation between RDI and enuresis was examined by χ^2 analysis. A value of $P < .05$ was considered statistically significant. **Results** Ninety boys and 70 girls were studied; 66 children (41%) described current enuresis. At all ages, enuresis was more prevalent in our patients than control patients in the literature. Children with an RDI of ≤ 1 had a significantly lower prevalence of enuresis (17%) than did children with an RDI > 1 (47%) ($P < .05$). Fourteen percent of children with an RDI ≤ 1 had frequent enuresis, compared with 32% of children with an RDI > 1 ($P < .05$). There was no significant difference in the prevalence of enuresis in children with an RDI 1 to 5, 5 to 15, or > 15 ($P = .92$). **Conclusions** There is a high prevalence of enuresis in children with suspected sleep-disordered breathing. Children with an RDI > 1 were at higher risk for enuresis than children with an RDI ≤ 1 . This may be due to the effects of obstructive sleep apnea on arousal response, bladder pressure, or urinary hormone secretion. (J Pediatr 2003;142:515-8)