

Neurobehavioral implications of habitual snoring in children.

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OBJECTIVE: Current guidelines for the treatment of children with obstructive sleep apnea (OSA) suggest that primary snoring (PS) in children is benign. However, PS has not been well evaluated, and it is unknown whether PS is associated with serious morbidity. This study investigated whether PS is associated with neurobehavioral deficits in children. **METHODS:** Parents of 5- to 7-year-old snoring children in public schools were surveyed about their child's sleeping habits. Children with a history of snoring and nonsnoring children were invited for overnight polysomnographic assessment and a battery of neurobehavioral tests. Only children who did not have a history of attention-deficit/hyperactivity disorder and were not considered hyperactive by parental report were tested. **RESULTS:** Children with a history of snoring, an obstructive apnea index of <1/hour of total sleep time (hrTST), an apnea/hypopnea index <5/hrTST, and no gas exchange abnormalities were classified as PS (n = 87). Control subjects were defined as children without a history of snoring, an obstructive apnea index <1/hrTST, an apnea/hypopnea index <5/hrTST, and no gas exchange abnormalities (n = 31). Although means for both groups were in the normal range, the PS children were found to perform worse on measures related to attention, social problems, and anxious/depressive symptoms. In addition, although within the normal range, both overall cognitive abilities and certain language and visuospatial functions were significantly lower for the PS group than for the control subjects. **CONCLUSIONS:** PS seems to be associated with significant neurobehavioral deficits in a subset of children, possibly related to increased susceptibility to sleep fragmentation. Larger studies are urgently required because current guidelines for treatment of snoring in children may require reevaluation.

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