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[Chronic snoring and obstructive sleep apnea-hypopnea syndrome in children]

[Article in French]

de Carlos Villafranca F, Cobo Plana J, Díaz-Esnaol B, Fernández-Mondragón P, Macías Escalada E, Puente Rodríguez M.

Service d'orthopédie dento-faciale et d'orthodontie, Clinique universitaire d'odontologie, Faculté de Médecine, Université d'Oviedo, Asturias, Espagne.

The problems children have in sleeping are manifold; the gamut of disorders that have been described ranges from simple, occasional snoring with no accompanying complications, through the syndrome of increased blockage of the upper airways to the obstructive sleep apnea-hypopnea syndrome (OSAHS) where respiratory difficulties accompanied by hypoxemia, hypercapnia and structural sleep difficulties. Mouth breathing and chronic snoring occur frequently in children, with the incidence of snoring, identical for both sexes, varying between 3.2 and 27%. Difficulties in sleeping begin between the ages of the 3 and 9, peaking between 3 and 6. These results demonstrate, in a general way, the disparity between growth of the adenoids and tonsils, and upper airway growth. A differential diagnosis between the various pathological possibilities is based on the observed clinical signs and symptoms, analysis of cephalometric radiographs, polysomnography, a nocturnal cardio-respiratory polygraph and a video film taken during sleep. Snoring is the most characteristic sign of OSAHS in children. We do not yet have available any synthetic study that would sum up results of studies of sleep disorders in children. Nevertheless, we can define obstructive sleep apnea in children as the partial or total cessation of nose and mouth breathing for a period double that of the normal respiratory cycle. Classical treatment of children who suffer from severe respiratory difficulties during sleep, after identification of the etiology of the problem, consists of surgical removal of the adenoids or tonsils and, in certain, continuous positive pressure to assist breathing. The authors of this article have worked with 137 patients between the ages of 6 and 9, 77 of whom were chronic snorers with an average age of 7 years 6 months. The average age of the control group of 60 children was 7 years 2 months. We collected clinical data, medical histories, and distributed a questionnaire to determine individual sleep and vigilance behavior of each child in the sample. To complete our evaluation, we made a cephalometric analysis of facial type, antero-postero skeletal pattern, upper airways, and hyoid bone position. The symptom that we encountered most frequently in young chronic snorers was agitated and uneasy sleep, sometimes accompanied by bed-wetting and cervical hyperextension. We often found daytime symptoms of hyperactivity and personality or behavioral problems. Hypertrophy of the adenoids, the adenoidal fascia, and the tonsils were also frequent clinical signs. The cephalometric analyses often showed the patients to be of the dolichocephalic facial type, often with the mandible rotated posteriorly. The children were as likely to be classified as Class II owing to retrognathic mandibles as to be Class III owing to maxillary deficiencies or mandibular excess. At the level of the upper airways, it appears that the development of snoring can be explained by a reduction in the dimensions of the upper pharynx accompanied by an increase in the dimensions of the middle and lower pharynxes.

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