Int J Pediatr Otorhinolaryngol. 2003 Jul;67(7):761-70.

Muscular, functional and orthodontic changes in pre school children with enlarged adenoids and tonsils.

Valera FC, **Travitzki LV**, **Mattar SE**, **Matsumoto MA**, **Elias AM**, **Anselmo-Lima WT**.

Otorhinolaringology Department of Clinical Hospital, Faculty of Medicine of Ribeirão Preto, University of São Paulo, Ribeirão Preto, São Paulo, Brazil. facpvalera@uol.com.br

INTRODUCTION: Hypertrophy of the adenoids and palatine tonsils is the second most frequent cause of upper respiratory obstruction and, consequently, mouth breathing in children. Prolonged mouth breathing leads to muscular and postural alterations which, in turn, cause dentoskeletal changes. OBJECTIVE: The aim of this study was to determine muscular, functional and dentoskeletal alterations in children aged 3-6 years. MATERIALS AND METHODS: Seventy-three children, including 44 with tonsil hypertrophy and 29 controls, were submitted to otorhinolaryngologic, speech pathologic and orthodontic assessment. RESULTS: Otorhinolaryngologic evaluation revealed a higher incidence of nasal obstruction, snoring, mouth breathing, apneas, nocturnal hypersalivation, itchy nose, repeated tonsillitis and bruxism in children with tonsils hypertrophy. Speech pathologic assessment showed a higher incidence of open lip and lower tongue position, and of hypotonia of the upper and lower lips, tongue and buccinator muscle in these children, accompanied by important impairment in mastication and deglutition. Orthodontic evaluation demonstrated a higher incidence of lower mandible position in relation to the cranial base, a reduction in lower posterior facial height, transverse atresia of the palate, and a dolicofacial pattern. CONCLUSION: Postural and functional alterations anticipate dentoskeletal changes, except for the facial pattern. Postural alterations and the skeletal pattern seem to play an important role in infant dentofacial growth.

PMID: 12791452 [PubMed - indexed for MEDLINE]