

Auditory processing assessment in children with obstructive sleep apnea syndrome.

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INTRODUCTION: The obstructive sleep apnea syndrome (OSAS) is a respiratory disorder that occurs during sleep and it is relatively common in children. **AIM:** The goal of this paper is to verify if there is a relationship between the obstructive sleep apnea syndrome (OSAS) and auditory processing. **METHODS:** In order to do that, three groups of children ranging in age from 5 to 11 were studied, including a normal group. Twenty subjects who made up the study group were submitted to ear, nose and throat (ENT) exams and to polysomnography (PSG), and were divided in two groups: GROUP I (RO) comprised of 10 children who presented oral breathing and displayed normal PSG, and GROUP II (SAS) comprised of 10 children who presented oral breathing and displayed abnormal PSG. Their performance was compared to the performance of the third group--GROUP III (REN) comprised of 10 children who did not refer ENT difficulties. All the subjects completed a basic audiometric assessment as well as an auditory processing diagnosis. **RESULTS:** The analyses of the results revealed a statistically significant difference in ENT exams related to the turbinate and the palatine tonsils. Group II presented a higher incidence of turbinate hypertrophy levels II and III ($p < 0.001$) and palatine tonsils hypertrophy grades III and IV ($p = 0.007$). Regarding the auditory processing assessment, a statistically significant difference ($p < 0.001$) was obtained in the dichotic digits test. Group II performed worse than group III. Also, for the non-verbal sequence memory test, Group II obtained a worse result ($p < 0.022$) than Group I. **CONCLUSION:** Subjects with OSAS obtained worse results in auditory processing tests.

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