

ABSTRACT

TITLE OF ABSTRACT:

Cognitive impairment and behavioral characteristics in children who snore

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OBJECTIVES:

The primary objective was to compare the cognitive impairment and behavioral changes of children with or without snoring. The secondary objective was to compare the same in children with or without OSA, based on overnight pulse oximetry.

METHODS:

51 children in the 4 to 9 year age group were divided into 2 groups based on the presence of snoring in a hospital based prospective cross sectional study. After an ENT evaluation, an OSA 18 questionnaire was administered to assess quality of life. X-ray nasopharynx and rigid nasal endoscopy were done in the snoring group. Both groups underwent cognitive and behavioral assessment using Binet-Kamat IQ test and Revised Connor's Parent Rating Scale respectively. Data was analysed using appropriate statistical tests with $p < 0.05$ considered as significant.

RESULTS:

In this study we compared 26 snoring children between the age group of 4-9 years to their 25 siblings who never snored. No significant neurocognitive impairment was seen in children with snoring compared to non snoring children however it was seen trending towards significance. In children with moderate to severe quality of life issues due to sleep disordered breathing, based on OAS 18 scores significant neurocognitive impairment was seen (p 0.009). No significant behavioral changes were seen, however oppositional behavior was seen trending towards significance (p 0.057). On assessing the severity of OSA using overnight pulse oximetry, the study was inconclusive in 81% of the snoring children.

KEY WORDS: cognitive, impairment, behaviour, sleep disordered breathing, children