

## Nasal resistance and OSA

Keywords: nasal resistance, osa, snoring.

Letters regarding the paper "Epidemiological study of the structural alterations present in the nasal cavity associated to the obstructive sleep apnea syndrome (OSAS)", published on the Brazilian Journal of Otorhinolaryngology 72 (4) July/August 2006. Paper available at: [http://www.rborl.org.br/conteudo/acervo/acervo\\_english.asp?id=3258](http://www.rborl.org.br/conteudo/acervo/acervo_english.asp?id=3258)

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### LETTER

Dear Editor,

Most studies of the pathophysiology of obstructive sleep apnea syndrome (OSA) have emphasized anatomical abnormalities of the oropharyngeal and hypopharyngeal airways. Yet the nose and its impact on snoring and OSAS have not been completely ignored.

Dr. Neto<sup>(1)</sup> and his friends emphasized that, structural alterations of the nasal cavity have high incidence in patients with OSA. These structural alterations such as septal deviation, conchal hypertrophy or others lead to obstruction of natural air flow and consequently increased nasal resistance.

Some studies reported that, nasal resistance has no impact on the pathogenesis of OSA. Thus, both snoring and sleep apnea are probably caused by other factors, such as restrictive processes in the pharyngeal area, rather than increased nasal resistance<sup>(2, 3, 4)</sup>.

Metes et al. did not find any effect on snoring, apneas, hypopneas or oxygen saturation in a small sample of patients, despite a reduction in nasal resistance<sup>(5)</sup>.

Nasal surgery for OSA usually has a very positive effect on improving the quality of life and CPAP tolerance in OSA patients<sup>(3, 5)</sup>.

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**Levon Mekhitarian Neto<sup>1</sup>**

### REPLY

I thank you for your interest and comment on my article posted on "Revista Brasileira de Otorrinolaringologia".

The OSA has a variety of causes, with anatomic abnormalities on the oropharyngeal and hypopharyngeal airways. We believe that these abnormalities are caused by the oral respiration since childhood, causing problems in the tongue posture, abnormal deglutition, and bite alterations, with orthognatic and morphological facial alterations.

In our series of cases the structural alterations of the nasal cavity had high incidence in patients with OSA, although I did not state that this was an OSA cause, but we emphasized that these nasal abnormalities must be studied and corrected, whenever possible, to increase CPAP tolerance.

Sincerely,

Levon Mekhitarian Neto

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