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Oropharyngeal Exercises for Sleep Apnea?

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Abstract and Introduction

Oropharyngeal exercises led to better objective and subjective outcomes.

Continuous positive airway pressure (CPAP) is tolerated poorly by many patients with obstructive sleep apnea (OSA). Certain patients have experienced positive outcomes with less-obtrusive interventions (e.g., mandibular advancement devices, weight reduction), and, now, Brazilian researchers introduce yet another alternative -- oropharyngeal exercises.

Thirty-one patients with moderate OSA (apnea-hypopnea index, 15-30 events hourly) were randomized to weekly sessions that involved instruction in either oropharyngeal exercises (intervention group) or deep-breathing exercises (control group); patients repeated the exercises at home daily. A speech pathologist taught the intervention program, which involved repetitive exercises of the soft palate, tongue, and facial muscles, as well as breathing, speech, swallowing, and chewing exercises ([video](#)). At 3 months, mean apnea-hypopnea indexes were unchanged in the control group but had decreased significantly in the intervention group (from about 22 to about 13 events hourly). Sleepiness and sleep-quality scores also improved significantly only in the intervention group.

Comment

A set of exercises designed to strengthen and recruit upper airway muscles improved objective and subjective measures of OSA. Although neither group in this study lost weight, mean neck circumferences decreased significantly in the intervention group but not in the control group, suggesting that the exercises changed upper airway anatomy. If these results can be duplicated elsewhere, another alternative to CPAP will be available for patients with mild-to-moderate OSA.

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References

1. Guimarães KC et al. Effects of oropharyngeal exercises on patients with moderate obstructive sleep apnea syndrome. *Am J Respir Crit Care Med* 2009 May 15; 179:962.

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