ORIGINAL STUDY

Simultaneous soft palate and posterior pillars bipolar radiofrequency (RaVoR™) application in patients with mild obstructive sleep apnea syndrome (OSAS) and associated snoring

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ABSTRACT

BACKGROUND. A prospective non-randomised office-based study was designed to investigate the effects of bipolar radiofrequency (RaVoR™) simultaneously applied to the soft palate and pillars in snorers with mild (AHI<25, average BMI=31.3) sleep apnea.

MATERIAL AND METHODS. Sixteen patients, fulfilling the inclusion and exclusion criteria, were treated according to the previously published own surgical method that uses electrodes conceived by the first author in cooperation with Sutter Medizintechnik (Freiburg/Germany). The only associated intervention was the partial uvulectomy performed in four patients with elongate uvula. Preoperative and two and six months postoperative sleep studies, patient’s examinations and interviews were carried out in all patients.

RESULTS. The reducing in AHI was moderate in all patients. Subjective improvement of the oral respiration and a relief in the throat was reported. Snoring was variably reduced in 10 (75%) patients. Enlargement of the palatopharyngeal space (posterior pillar “velarisation”) could be observed. After the combined intervention, a generally mild oedema and odinophagia were observed. Only the partial resection of the uvula caused transient difficulties in swallowing for the patient.

CONCLUSION. Although the improvements in objective sleep study parameters were not spectacular, the short term observations suggest that the method can be retained as an interesting minimally invasive alternative to more radical tissue-resection type interventions. The study assesses the suitability of our surgical palatal approach in an office-based setting. More operations as well as long-term evaluation is required.

KEYWORDS: snoring, sleep apnea syndrome, velar and posterior pillars radiofrequency, bipolar electrodes

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