

## **A novel Erbium: YAG fractional laser treatment for reduction of snoring using „Romeo®“ handpiece: a pilot study**

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**Aim:** To evaluate safety and effectiveness of the new laser handpiece for snoring reduction in order to establish a protocol for this kind of treatment and follow up

**Patients and methods:** This pilot study was conducted in Bagatin Clinic, Zagreb, Croatia from July 2016. to February 2017. Ten patients – 9 men and 1 woman (age range 25-55; mean 38,1 y.o.) with severe snoring were enrolled into study. Inclusion criteria were: socially unacceptable snoring due to fluttering of uvula, tonsillar pillars, and soft palate. Exclusion criteria were: Mallampati score >2, tonsils size according to Friedman > 2, severe nasal obstruction, craniofacial malformations and tumors. Snoring severity was measured by patients using Snore Lab v.3.7.3 app (Riveva Softworks Ltd.) starting 48 hours after laser treatment. The patients were self-measuring themselves every other night for the period of 4 weeks and once weekly during weekdays for the period of 4-6 months after the treatment. The results were sent electronically to the Clinic. All patients were treated by fractional YAG laser with newly designed handpiece in ambulatory facility without local anesthesia in sitting position. Handpiece was positioned on six points in anterior pillars, uvula and soft palate using [...] on Asclepion Erbium YAG MCL31 Dermablade Laser.

**Results:** No adverse effects were encountered. In all patients reduction of snoring was significant. Mean reduction of snoring in terms of time and amplitude was between 40% and 60% in 4-6 months interval, while more than 50% of the subjects and their bedpartners stated “excellent improvement”. At the time this abstract is written, 9 months post treatment results are still pending.

**Conclusion:** A novel Erbium: YAG fractional laser treatment using „Romeo®“ handpiece is safe and effective in treatment of simple snoring caused by fluttering of uvula, tonsillar pillars and soft palate. It is quick, easy to perform, has no downtime for the patients, can be done without local or topical anesthesia in ambulatory facility by any MD licensed physician with sufficient anatomical background.

**Outpatient erbium:YAG (2940 nm) laser treatment for snoring: a prospective study on 40 patients**  
*Storchi IF, Parker S, Bovis F, Benedicenti S, Amaroli A (2018), Lasers Med Sci. Feb;33(2):399-406*

**Er:Yag Laser Treatment of Simple Snorers in an Outpatient Setting**

*Cetinkaya EA, Turker M, Kiraz K, Gulkesen HK. (2016) ORL J Otorhinolaryngol Relat Spec. 2016;78(2):70-6*

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## ANTI-SNORING TREATMENT