Radiofrequency surgery of the soft palate presents a promising alternative for the treatment of sleep-disordered breathing (SDB). A clinical trial using either radiofrequency (RF) uvuloplasty or simultaneous RF of the soft palate and the inferior nasal turbinates was investigated to determine comparative efficacy of these two methods in the treatment of snoring and mild to moderate Obstructive Sleep Apnea Syndrome (OSAS).

A prospective study of 56 snorers and/or OSAS patients were investigated concerning before and, at minimum, 2 months after the RF surgery against SDB. Among them, 24 patients underwent RF reduction of the inferior nasal turbinates and RF reduction of soft palate (Group 1), and the remaining 32 underwent RF reduction of the inferior nasal turbinates, medial regions of the soft palate as well as RF uvuloplasty. We made between-group comparison of post-surgical changes of practice parameters: Body Mass Index (BMI), nasal breathing (airflow), snoring, apnea hypopnea index (AHI), daytime sleepiness measured by Epworth Sleepiness Scale (ESS) and severity of post-surgery pain (VAS).

We observed no post-surgery significant changes of patients’ BMI in either of group. Post-surgery nasal turbinate airflow was completely restored in 79% of patients in Group 1 vs. 84.5% of those in Group 2. After surgery, nasal mild breathing impairment was found in 12.5% of patients both in Group 1 and 2. In addition, after nasal surgery, loudness of snoring dropped from 8.1±1.3 to 5.2±2.4 in Group 1 and from 8.4±2.2 to 2.7±2.3 in Group 2 (P<0.05 for both). AHI decreased from 18.2±4.2 to 10.4±3.7 in Group 1 and from 19.4±5.5 to 5.9±1.73 in Group 2 (P<0.05 for both). ESS also decreased from 9.5±3.5 to 5.2±2.2 in Group 1 and from 9.3±3.6 to 2.3±1.81 in Group 2 (P<0.05 for both). However, post-surgery pain index was greater in Group 2 than in Group 1 (7.2±2.6 vs. 3.8±3.2, P<0.05).

Both nasal surgery approaches are acceptable for the treatment of snoring. Though the 2nd approach seems a bit more effective, it may cause more intensive post-surgery pain.

References

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