



Inferior Turbinate Reduction

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- Topical Steroids
- Radio-frequency ablation
- laser

Evaluation of the effect of intranasal corticosteroid sprays on radiofrequency tissue ablation in the treatment of hypertrophied inferior turbinate

- This study aims to evaluate the effect of combining the radiofrequency with intranasal corticosteroid spray.
- We recommend the use of intranasal corticosteroids with RF applications to increase the efficacy of radiofrequency.

Powered-assisted partial turbinectomy versus mometasone furoate nasal spray for relief of nasal blockage in chronic or idiopathic rhinosinusitis

- PNIF (peak nasal inspiratory flow) scores improved for all patients
- Significantly only for patients on mometasone spray.
- Patients' self-reported symptoms decreased more for operated patients.
- Side effects were few and mild in both groups.

Intranasal steroids or radiofrequency turbinoplasty in persistent allergic rhinitis: effects on quality of life and objective parameters

- 12 month study
- RFT provided a better reduction in the perception of congestion in VAS scores.
- RQLQ scores improved significantly in both groups 1 year after treatment (mean follow-up 14.2 months)

Radiofrequency Ablation

- A probe into the inferior turbinate
- low-frequency energy → ionic agitation of tissues → elevated temperature → coagulative necrosis
- postoperative wound contracture and fibrosis.
- The energy limited to the submucosa, which preserves the surface epithelium and, ciliary function
- Coblation technology, which relies on electrodissection by molecular activation, is generally grouped as a subset within RFA and similarly targets the submucosal layers
- Less pain, promising in pediatrics.

Outcome of RF

- 35 reviewed studies.
- The outcome of RFA on symptomatic improvement in AR was primarily based on subjective measures, such as quality of life questionnaires and patient or physician visual analog scales
- subjective improvement of nasal patency peaked around 3 weeks after treatment.
- statistically significant
- microdebrider-assisted turbinoplasty showed superior results in reducing nasal volume and nasal blockage.
- RFA had fewer side effects.

Long term RF

- 101 patients refractory to medical therapy.
- 5 years follow up
- Both global patient questionnaires and visual analog scales were used to evaluate the efficacy of RFA in this series.
- Response rates at 6 months and 5 years were 77.3% and 60.5%, respectively
- no improvement in 17 patients
- The authors hypothesized that the reduction in ocular symptoms in their study, approximately 43%, may be from an RFA mediated inhibitory effect on the local immune response or naso-ocular reflex

Long-term clinical results of RF

- 197 patients, 148 FU.
- 60 months
- No significant peri-operative complications
- 32 patients required follow-up treatment.
- Significant improvements were seen in nasal obstruction and discharge scores and in acoustic rhinometry values

Laser Vaporization of the Inferior Turbinate

- Six basic laser systems are available for the treatment of hypertrophic inferior turbinates:
 1. carbon dioxide (CO₂)
 2. Diode
 3. Nd:YAG
 4. KTP
 5. Argonion
 6. Ho:YAGlasers
- Each laser differs slightly in depth of penetration and the optimum chromophore.
- benefits of laser therapy include enhanced hemostasis, reduced postoperative pain, and improved healing

Laser Outcome

- 40 subjects
- Statistically significant improvements in both objective rhinomanometry and subjective scores for nasal obstruction, rhinorrhea, sneezing, and nasal pruritus.
- Better results in perennial patients, but was more sustained in the seasonal rhinitis
- Overall, 80% and 65% of patients experienced a stable, nonmedicated course at 1 and 2 years
- In some cases, bony exposure of septal crests or spurs occurred, but no significant long- or short-term adverse outcomes were seen.

Thank You