SURGICAL METHODS FOR INFERIOR TURBINATE HYPERTROPHY IN RHINOPLASTY: A COMPREHENSIVE REVIEW

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Abstract. When performing rhinoplasty, plastic surgeons frequently find inferior turbinate hypertrophy. The inferior turbinate can be treated in a variety of ways. This study aimed to give recommendations for surgical turbinate management by methodically reviewing the results of existing procedures.

Key words: Rhinoplasty, surgery, vasomotor rhinits, turbinoectomy, allergic rhinits.

Introduction. When performing rhinoplasty, plastic surgeons frequently find inferior turbinate hypertrophy. Intranasal anatomy and physiology are essential for surgeons to comprehend in order to prevent iatrogenic harm and address pre-existing issues. One known cause of nasal blockage is inferior turbinate hypertrophy. Patients undergoing rhinoplasty who have experienced unsatisfactory medicinal treatment for turbinate hypertrophy may benefit from surgical treatment of the turbinates. There are several uses for the inferior turbinate. They both play a part in the inspiratory resistance required for regular breathing.

Additionally, turbinate design causes laminar flow to change to turbulent flow. Increased contact between inspired air and mucosa is a result of turbulent flow. within the nasal cavity. This interaction is crucial for olfactory perception as well as air warming and purification. Lastly, the mucosal surface offers immunologic advantages and facilitates mucociliary clearance.

Methods: To find treatment options for inferior turbinate hypertrophy, a MEDLINE search was conducted. The chosen studies excluded individuals with refractory allergic rhinitis, vasomotor rhinitis, or hypertrophic rhinitis and concentrated on treating the inferior turbinate alone.

Results: Total turbinectomy, partial turbinectomy, submucosal excision, laser surgery, cryotherapy, electrocautery, radiofrequency ablation, and turbinate outfracture were among the surgical treatments for inferior turbinate hypertrophy that were found in 58 publications. Complications and results were gathered from every study. While more conservative therapies like cryotherapy and submucous diathermy did not produce long-term outcomes, procedures like partial/total turbinectomy and submucosal excision demonstrated crusting and epistaxis at relatively higher rates. It has been demonstrated that radiofrequency ablation and submucosal excision reduce nasal resistance while maintaining mucosal function. There is no research to back up the idea that turbinate outfracture by itself can effectively treat turbinate hypertrophy.

Conclusions: The best methods for treating inferior turbinate hypertrophy are those that preserve turbinate function, have long-lasting effects, and have minimal rates of complications. Radiofrequency ablation and submucosal excision seem to meet these requirements the best. Only in conjunction with tissue-reduction techniques can turbinate outfracture be taken into consideration.

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