

COBLATION VERSUS MICRODEBRIDER-ASSISTED TURBINOPLASTY FOR ENDOSCOPIC INFERIOR TURBINATES REDUCTION

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Abstract. The primary goal of surgical intervention for patients with persistent inferior turbinates hypertrophy who are not responding to medicinal therapy is to relieve their symptoms without causing any problems. Because it effectively clears nasal space by removing blocking soft tissue and bone while maintaining the turbinate mucosa, extratubrinoplasty is one of the recommended treatments for turbinate reduction. As an extratubrinoplasty treatment, we aimed to assess the safety and efficacy of coblation assisted turbinoplasty (CAT) and microdebrider assisted turbinoplasty (MAT).

Keywords: Coblation assisted turbinoplasty; Inferior turbinate hypertrophy; Microdebrider assisted turbinoplasty.

Introduction. When medical treatments are ineffective for hypertrophic inferior turbinates, surgery is necessary to treat them. Relieving the blockage while maintaining the turbinate's functionality is the primary objective of surgically reducing the inferior turbinate [1,4]. Over the years, numerous surgical techniques have been described and carried out. Based on the preservation of the medial mucosa of the inferior turbinates, surgical procedures are divided into two categories: mucosal-sparing and non-mucosal-sparing, regardless of the technologies and techniques used [5,6,7]. Non-mucosal-sparing procedures have been linked to postoperative consequences such heavy bleeding, crusting, pain, and a lengthy recovery period, despite their effectiveness in easing nasal block. The mucosal-sparing method is the recommended choice since it avoids these issues. Despite being widely used, there is a great deal of misunderstanding and disconnection between

present practices and their fundamental goals [2,4]. Misconceptions about the wide range of surgical procedures available and the justification for turbinate reduction may be the cause of this debate. To better describe each technique and enhance comprehension of the underlying principle and mechanism, a thorough review of every surgical intervention is essential [5,7,9].

Methods: For patients with bilateral nasal obstruction due to inferior turbinates hypertrophy, a prospective randomized comparative trial was carried out. Patients were split between MAT and CAT at random. For both procedures, an extratubinal medial flap turbinoplasty was carried out. The visual analogue score for nasal obstruction, sneezing, rhinorrhea, headache, and hyposmia was used to evaluate the symptoms. Through nasoendoscopic examination, turbinate size, edema, and secretions were evaluated. Preoperatively, during the first postoperative week, and during the second and third postoperative months, the evaluations were completed. There was documentation of postoperative morbidity, including discomfort, hemorrhage, crusting, and synechiae. Repeated measures ANOVA was used to assess the clinical results of both methods.

Results: Thirteen patients were randomly assigned to MAT, and sixteen patients were assigned to CAT, for a total of 33 participants. For all treatments, there was a significant decrease in nasal blockage, discharge, sneezing, headache, and hyposmia from the first week to the third month. Turbinate size, edema, and secretions all showed comparable, noteworthy decreases. At the first postoperative week, second, and third postoperative months, however, there was no discernible difference in the symptoms or turbinate size decrease between the two groups. CAT's operation time was much longer than MAT's ($p = 0.001$). Neither group experienced hemorrhage, crusting, or synechiae as postoperative sequelae.

Conclusion: In individuals with inferior turbinate hypertrophy, both MAT and CAT were equally successful in reducing turbinate size and alleviating nasal symptoms. In patients with inferior turbinates hypertrophy, both MAT and CAT provide the greatest amount of relief by safely excising the turbinate bone and the hypertrophied soft tissue.

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