Microdebrider-assisted turbinoplasty Versus submucosal cauterization in Inferior turbinate hypertrophy

Protocol submitted for the partial fulfillment of the M.D degree in Otorhinolaryngology

By

Abdel Rahman Younes Ali

(M.B.B.Ch / M.Sc. E.N.T. Cairo University)

Under Supervision of

Prof. Dr. Mohamed Sadek Rifai

Professor of Otorhinolaryngology

Cairo University

Prof. Dr. Mohamed Salah El-Din Hassouna

Professor of Otorhinolaryngology

Cairo University

Prof. Dr. Hady Salah El-Din AbdelAzim

Professor of Otorhinolaryngology

Cairo University

Faculty of Medicine

Cairo University

2012

Abstract

Chronic nasal obstruction is one of the most common human problems and a very frequent symptom in the ear, nose, and throat field. Hypertrophy of the inferior turbinates is the most frequent cause and may be related to allergy, pseudo allergy, nonallergic rhinitis with eosinophilic syndrome, and iatrogenic rhinopathy**.**

Even though medical treatments are frequently effective to restore comfortable nasal breathing, nasal obstruction is sometimes slightly improved, leading some patients to increase their consumption of local decongestants with a high risk of iatrogenic effects. In these cases, surgical reduction of inferior turbinates can be proposed. Inferior turbinate surgery is advocated for relief of symptoms in patients with chronic nasal congestion. Numerous reports substantiate the usefulness of inferior turbinate surgery**.**

Mucociliary function is an important defense mechanism that protects the respiratory system against bacteria and other foreign particles. Nasal mucociliary function is impaired in the majority of surgical reductions of the inferior turbinate. A wider nasal cavity does not necessarily mean that the nose functions are better. The goal of the surgical treatment should be to diminish complaints while preserving functions and optimal volume reduction together.

A large variety of surgical procedures have been described, each with its own advantages and imperfections. Any technique destroying the turbinate mucosa (surface electrocautery, cryosurgery, total turbinectomy) is more likely to lead to a loss of turbinate function, crusting, and adhesions.

Some techniques of submucosal tissue reduction (SMC, injection of steroids or sclerosing agents) can preserve turbinate function but are generally found to offer only a limited or short-term result. A tailored resection of submucosal soft tissues _ turbinate bone (turbinoplasty) has been reported to provide the best long-term results in a large prospective comparative trial by Passali et al ***(Passali et al, 2003).***

During the last decade, a number of techniques for turbinoplasty have been described. Since it was first reported by Davis and Nishioka, most authors prefer powered instruments ***(Davis & Nishioka, 1996)*** and visualization by rigid endoscope. The extent of resection includes bone, submucosa, and lateral/inferior mucosa in most studies ;***(Bielamowicz et al, 1999)*** however, some authors avoid mucosal damage and only resect bone or submucosa. Regardless of these variations, all authors agree that turbinoplasty is a superior technique for the management of inferior turbinate hypertrophy, producing a lasting and adequate decrease in turbinate size with low morbidity**.**

Endoscopic microdebrider–assisted inferior turbinoplasty is a newly developed surgical technique. When compared with traditional surgical treatments, endoscopic microdebrider– assisted inferior turbinoplasty has the advantages of being minimally invasive, allowing the preservation of physiological nasal mucosa, and being a painless and tolerable procedure that is easily achieved with the patient under local anesthesia in an outpatient clinical setting.

On the other hand, submucosal cauterization (SMC) remains a very popular technique because of its technical ease and lack of complications**.**

Although recent studies preliminarily confirmed the effectiveness of turbinoplasty in relieving nasal obstruction, little is known about the prognostic factors determining the outcome. Theoretically, the allergic status of patients, by affecting the regional inflammatory condition of the nasal mucosa and submucosal tissue, might influence procedures aimed at reducing the volume of the inferior turbinate**.**

Key words;

Microdebrider-assisted turbinoplasty Versus submucosal cauterization in

Inferior turbinate hypertrophy.

Acknowledgement

*First and foremost **"thanks to ALLAH"**, the most beneficient and merciful.*

*I would like to express my appreciation, deepest gratitude and enoromous to prof. Dr. **Mohamed Rifai** . Professor of Otorhinolaryngology, Faculty Of Medicine, Cairo University. Because of his unlimited support, helpful spirit and his own scientific experience, which he devoted to me to do my assay, my thanks to him is endless and so warm.*

*I would like to express my sincere and great gratitude to prof. Dr. **Mohamed Salah** . professor of Otorhinolaryngology, Faculty Of Medicine, Cairo University. and prof. Dr. **Hady Salah** . professor of Otorhinolaryngology, Faculty Of Medicine, Cairo University*

For their continous support, valuable advices and greatest help.

I extend my deepest thanks to all my professors and all my colleagues in ENT departement, Faculty of Medicine, Cairo University. for their continous encouragement and support.

I am extremely grateful to my family especially my mother for their kindness, toleration, devotion and motivation, without their support and helpfulness, this work would never have come to light.

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Introduction

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Even though medical treatments are frequently effective to restore comfortable nasal breathing, nasal obstruction is sometimes slightly improved, leading some patients to increase their consumption of local decongestants with a high risk of iatrogenic effects. In these cases, surgical reduction of inferior turbinates can be proposed. Inferior turbinate surgery is advocated for relief of symptoms in patients with chronic nasal congestion. Numerous reports substantiate the usefulness of inferior turbinate surgery ***(Salam & Wengraf, 1993).***

Various techniques are currently performed to reduce the volume of the mucosal (and sometimes bony) tissues of the inferior turbinates. Although most of these techniques provide satisfactory results for a more or less long period, adverse events are frequently observed after such treatments: postoperative bleeding, crusting, foul odor, pain, hyposmia, and synechia. No technique is perfect, and each is associated with known short- and long-term complications. The variety of surgical techniques available indicates the lack of consensus on the optimal technique ***(Sapci, 2003).***

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On the other hand, submucosal cauterization (SMC) remains a very popular technique because of its technical ease and lack of complications ***(Fradis et al., 2002).***

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