The effect of septorhinoplasty on nasal function

Meta-Analysis Study
For partial fulfillment of Master degree
In Otorhinolaryngology

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List of Abbreviations

Abb.	Full term
CN	Cranial nerve
LLCs	Lower lateral cartilages
NFr	Nasofrontal angle
NL	Nasolibial angle
NOSE	Nasal Obstruction Symptom Evaluation
ULCs	Upper lateral cartilages

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Abstract:

Background: Septorhinoplasty is without doubt one of the most difficult operations in facial plastic surgery. Whether it is done for primarily functional or aesthetic concerns, it is imperative that the surgeon be highly aware of the functional and structural tenets of the nose. Certainly, its important functions include warming and humidification of inspired air, along with olfaction. To the rhinoplastic surgeon, however, air flow is chief among the nose's purposes.

Objectives: In this paper, the aim is to Determine the effect of septorhinoplasty on nasal function mainly nasal obstruction subjectively by NOSE score. **Methods**:The study will include published medical articles concerning the effect of septorhinoplasty on nasal function mainly nasal obstruction subjectively by NOSE score through the medLine data base.

Results:Meta-analysis comparing the NOSE score before and after septorhinoplasty showed a relatively higher relief in the nasal obstruction after septorhinoplasty.

Conclusion:The available data shows that nasal obstruction improves after septorhinoplasty and better nasal function can be obtained. So septorhinoplasty can improve not only the shape of the nose, but also its function.

Key words: **septorhinoplasty, nasal function, nasal obstruction, NOSE score.**

Introduction

INTRODUCTION

Septorhinoplasty is without doubt one of the most difficult operations in facial plastic surgery ***(Szalay, 1996)*.**

The nose, at the center of the human face, is plain for all to see and critique. The successful rhinoplasty must produce a pleasing result to the eye and still maintain proper function ***(Harsha, 2013).***

The development of this operation has not been a steady, gradual process, but has occurred in three great spurts. Each of these three phases has occurred in different continents and was dominated by a surgeon of genius. The history of rhinoplasty started in India about 600 BC and the surgical innovator was a rather shadowy figure called Susruta. The full details and dates of his work, however, are unknown to us. Italy was the site for the second phase, which occurred during the Renaissance, and the name of gaspare tagliacozzi (1545-1599) will always be associated with this period. Finally, we have the modern phase where the main developments have occurred in Northern Europe and North America ***(Brain, 1993)*.**

Whether it is done for primarily functional or aesthetic concerns, it is imperative that the surgeon be highly aware of the functional and structural tenets of the nose. Certainly, its important functions include warming and humidification of inspired air, along with olfaction. To the rhinoplastic surgeon, however, air flow is chief among the nose's purposes ***(Weissman and Most, 2013).***

Although objective quantitative measures and expert technique are important to the outcome, the subjective qualitative evaluation by the patient ultimately determines patient satisfaction and a successful outcome in aesthetic facial plastic surgery ***(Yu K et al., 2010).***

Every surgical operation has a tendency to complications, and only the surgeon who does not operate has no complications. A knowledge of relevant complications and sequelae is essential to enlighten the patient so that an informed decision can be made, for reducing the incidence of such complications, for minimizing the gravity of an impending complication, and for treating a complication once it has occurred ***(Fernandes, 2016).***

Technological advances in materials and surgical techniques have simplified and reduced complications in many aesthetic procedures. But rhinoplasty continues to present challenges to the aesthetic surgeon and patient alike.

Many of these complications in rhinoplasty can be avoided by meticulous attention to detail during the operative procedure. This is perhaps most important at the end of the operative procedure. A final check of the surgical result prior to suturing and splinting is mandatory ***(Harsha, 2013)***.

A thorough preoperative evaluation of both the structure and function of the nose is essential in identifying and avoiding the potential pitfalls that may compromise nasal function postoperatively ***(Weissman and Most, 2013).***

Aim of the Work

AIM OF THE WORK

The aim of this study is to evaluate the effect of septorhinoplasty on nasal function through a meta-analysis study.

Review of literature

Chapter (I): 

Anatomy of the Nose