ORIGINAL RESEARCH PAPER
Volume - 10 | Issue - 03 | March - 2021 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

DOES TURBINOPLASTY IMPROVE OTOLOGICAL SYMPTOMS?

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Mano Leoni Divya* Department of Otorhinolaryngology, Shri Sathya Sai Medical College and Research Institute, Sri Balaji Vidyapeeth University, Kancheepuram, Tamil Nadu, India. *Corresponding Author

Valli Rajasekaran Professor and HOD, Department of Otorhinolaryngology, Shri Sathya Sai Medical College and Research Institute, Sri Balaji Vidyapeeth, University, Kancheepuram Tamil Nadu, India.

Dharmapuri Yaadhava Krishnan Raj Prakash Professor, Department of Otorhinolaryngology, Shri Sathya Sai Medical College and Research Institute, Sri Balaji Vidyapeeth, University, Kancheepuram Tamil Nadu, India.

ABSTRACT

Patients with Inferior turbinate hypertrophy apart from experiencing nasal obstruction also suffer otological symptoms. Various studies conducted so far evaluate in detail about improvement in nasal symptoms alone following inferior turbinate hypertrophy reduction. There is a need for evaluating the improvement in ontological symptoms. The purpose of our study was to evaluate aural fullness encountered most commonly following inferior turbinate hypertrophy and its effective improvement following turbinoplasty. In our study 15 patients with aural fullness were evaluated for improvement post turbinoplasty for a 3 month period. It was concluded that turbinoplasty does show significant improvement of aural fullness. This study adds a new paradigm on the role of nasal inferior turbinate surgery in improving otological symptoms.

KEYWORDS

inferior turbinate hypertrophy, turbinoplasty, aural fullness,

INTRODUCTION

Inferior turbinate is an important part of normal nasal physiology. Inferior turbinate hypertrophy causes reduction in normal physiological airflow which in turn affects the Eustachian tube ventilation. Eustachian tube dysfunctions often lead to otological disorders.[1]

Nasal symptoms caused by inferior turbinate hypertrophy have been well explored by many researchers. The treatment techniques to reduce turbinate hypertrophy are multiple and studies on each technique has advanced our knowledge in the field of nasal surgeries. Despite the vast source of data available, not many were found to explore the otological symptoms caused by hypertrophy of inferior turbinate nor the effectiveness of turbinate surgeries to relieve the symptoms. This poses a need for study on the otological symptoms, and effectiveness post the conventional and commonly practiced surgery being turbinoplasty.

In our study 15 patients who presented with inferior turbinate hypertrophy were examined for otological findings and symptoms. All patients underwent turbinoplasty. Post-operative otological findings and symptoms were recorded at 2 weeks, 1 month and 3 months respectively. Improvement in symptoms over the time period were studied.

Among the otological symptoms aural fullness was the commonest presentations.

Table – 1. Ear Fullness Scoring Among The Group Based On Different Time Periods

	Turbinoplasty	
	Mean	**Standard deviation (SD)**
Pre operatively	2.07	0.79
2 weeks post operatively	1.33	0.49
1 month post operatively	0.53	0.52
3 month post operatively	0.00	0.000

The above table shows the mean and standard deviation of the ear fullness scoring among the turbinoplasty group based on time periods. The mean (SD) among the groups at preoperative time, after 1 week post operatively, 1 month and 3 month post operatively was 2.07(0.79), 1.33 (0.49), 0.53(0.52) and 0(0) among the turbinoplasty group.

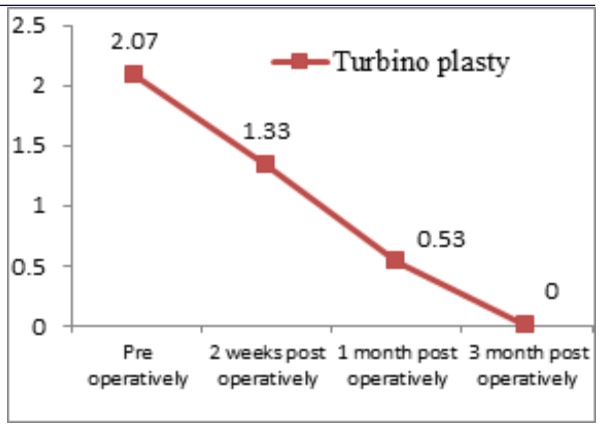

Figure 1: Ear fullness scoring among the group based on different time periods

The above figure shows the mean and standard deviation of the ear fullness scoring among the groups based on time periods to be 2.07(0.79), 1.33 (0.49), 0.53(0.52) and 0(0) among the turbinoplasty group respectively

In our study there was significant improvement in aural fullness following turbinoplasty which is contradictory to the study by Teemu Harija et al who conclude that no improvement in Eustachian tube dysfunction or aural symptoms are seen solely by reducing anterior half of inferior turbinate and compare it to placebo.[1] This contradiction could be due to the use of microdebrider assisted turbinoplasty as compared to submucosal resection technique used in the present study. Similar to our study Kavin kumar et al studied effect of turbinoplasty on aural symptoms as a part of snot 22 scoring and found improvement of the symptoms following the procedure after 6 month follow up period.[2]

CONCLUSIONS

To conclude, Turbinoplasty being a commonly practiced surgical technique provides effective treatment outcomes in relieving aural symptoms. On evaluating the most common aural symptom which was aural fullness it was found that at 2 weeks, 1 month and 3 month follow

up significant improvement was seen.

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