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RESEARCH ARTICLE

INFERIOR TURBINECTOMY, IS IT WORTH IT?

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ABSTRACT

Objective:The aim was to compare septoplasty with turbinectomy cases with septoplasty without turbinectomy, with respect to post-operative pain, complication occurring and relief of symptoms.

Method: 30 patients having deviated nasal septum with hypertrophy of inferior turbinate and they were divided into 2 groups of 15 patients each and operated. They were followed up for 3 months and findings were noted.

Results: A statistically significant number of synechia formation were observed in the group which underwent turbinectomy, also there were increased incidence of crusting and middle meatus discharge.

Conclusion: there is minor difference in symptomatic relief in between 2 groups. But there is higher amount of complication rate in the group in which septoplasty with turbinectomy was performed.

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INTRODUCTION

Nasal obstruction is the most common complaint in rhinologic practice and a deviated nasal septum is the most common cause of nasal obstruction a significantly deviated nasal septum has been implicated in epistaxis, sinusitis, obstructive sleep apnea and headaches attributable to contact points with structures of the lateral nasal wall⁽¹⁾. Diseases that cause chronic nasal obstruction basically involve the lateral wall of the nasal cavity, causing changes to both the mucosa and the submucosa of the nasal turbinates. 75–80 % of the general population is estimated to exhibit some type of anatomical deformity of the nose, most commonly a deviated nasal septum. This deviation is often associated with overgrowth of the inferior turbinate, which occupies much of the contralateral nasal cavity. Turbinate surgery is routinely performed in conjunction with septoplasty in patients with nasal obstruction and septum deviation. However, the indications for turbinate surgery are not well defined, and surgical techniques vary substantially among rhinologic surgeons⁽²⁾.

PATIENTS AND METHODS

A group of 30 patient with deviated nasal septum refractory to medical treatment with long term nasal obstruction and headache were selected from outpatient department of

Otorhinolaryngology. A well informed written consent was taken. Preoperative assessment was done, a detailed history was taken, patients were examined and preoperative findings were noted. 15 patients with hypertrophied inferior turbinate were planned for inferior turbinectomy and 15 patients with only DNS were taken as control. Preoperative medication were given to the patients and they were taken for surgery.

After infiltration with 2% xylocaine with adrenaline into columella and septum under headlight, incision (hemitransfixion incision) was made at caudal border. The mucoperichondrial and periosteal flaps were elevated upto perpendicular plate of ethmoid. The osseocartilaginous junction was dislocated. A 0.5 cm of the anterior margin of perpendicular plate of ethmoid was removed with Luc's forceps. An inferior cartilaginous strip of 0.5 cm was removed if necessary. The incision was closed using chromic catgut (3-0) and nasal packing was done.

Turbinectomy: medial and upward fracture is done, the inferior turbinate was resected by angled scissors along the insertion close to the lateral nasal wall.

Nasal packing was done for all cases in both groups with Vaseline nasal packs and I.V. antibiotics were started.

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Immediate postoperative pain assessment was done, by using Visual analog scale (VAS), nasal packs were removed on day 2 of surgery.

Patients of both groups were discharged with one week of antibiotics and analgesics, decongestant nasal drops were given for 3 days followed by saline nasal drops till next visit.

Postoperatively one week, three weeks, one month, three months follow up was done and following points were noted on diagnostic nasal endoscopy.

1. Persistence of anterior/posterior deviation or spur.
2. Formation of synechia.
3. Persistent pathology of turbinates.
4. Presence of discharge in middle meatus.
5. Cold spatula test.
6. Improvement of nasal obstruction symptoms on scale of 1 to 10.
7. Any change in external appearance.

RESULTS

The study included 30 patients, 20 males and 10 females, out of which 10 males and 5 females underwent septoplasty with turbinectomy. Intraoperative blood loss was assessed in both the groups.

Postoperative pain assessment was done by using VAS score as show in table-1

Table 1 Show intraoperative blood loss ,post-operative Pain assessment.

	group	Mean
Pain assessment	Without turbinectomy	3.2
	With turbinectomy	5.7
Blood loss	Without turbinectomy	50
	With turbinectomy	80

Intraoperative blood loss was noted to be more in the group under goingtubinectomy, when compared to the patients who under went only septoplasty. Immediate post operative pain assessment was done in both the groups and it was found to be higher in the group where turbinectomy was performed, it was 5.7 in the group with turbinectomy and 3.7 without turbinectomy.

Patients were followed up for 1 week, 3 week ,1 month and 3 months.

Table2 shows synechia formation in patients under goingseptoplasty with turbinectomy and without turbinectomyat the end of 1 week

	Without turbinectomy	With turbinectomy	Total	p value
Synechia	1	9	10	0.0019
Not Synechia	14	6	20	
Total	15	15	30	

Patients who have under gone septoplasty with turbinectomy it was found that 9 out of 15 developed some amount of synechia in the 1st week of follow up which is statistically significant, these synechia were released on further follow up. Synechia were seen in only one patient in the other group.

Table 3 - shows middle meatus discharge at the end of 1 week.

	Without turbinectomy	With turbinectomy	Total	p value
Discharge	3	7	10	0.1213
Not Discharge	12	8	20	
Total	15	15	30	

At 1 week follow up

In the group where turbinectomy was not performed only one patient out of 15 patient developed synechia and 3 patients out of 15 patients had discharge from middle meatus.

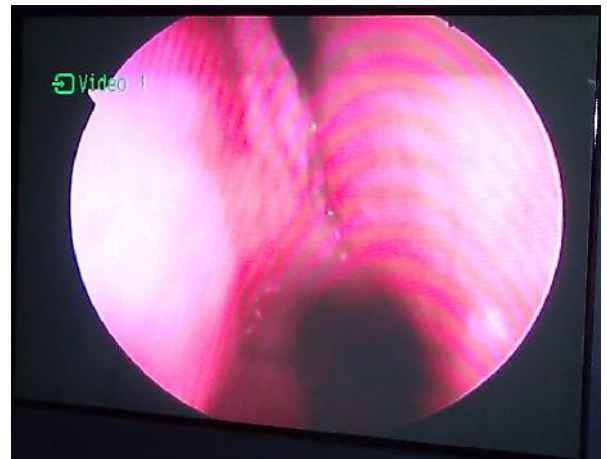
On the other hand the group were turbinectomy was performed along with septoplasty showed higher number of synechia cases i.e. 9 out of 15 patients with p value of 0.0019 which is significant.

Also there were higher number of cases with middle meatus discharge i.e. 7 out 15 cases but it is not statistically significant. At 3 months follow up: symptom of nasal obstruction was assessed on a scale of 10.

(1being no improvement and 10 being maximum improvement.)

Patients who had under gone septoplasty With turbinectomy had an average score of 7.4

And patient who had undergone only septoplasty had a score of 6.4.



Synechia formation seen at one week of follow up

DISCUSSION

Pathogenesis of hypertrophied inferior turbinate is associated with deviated septum, as compensation to deflection of the nasal septum, because the hypertrophy protects the more patent passage from excess airflow which has drying and crusting effects on the nasal mucous membrane.

The deviation correction allowed normal bilateral airflow, so there was no need for the compensation of the other nostril.

According to the study conducted by Mathew Oluwole et al 3 out of 15 cases had considerable blood loss leading to blood

transfusion in 2 patients. This goes on par with our study where there was more amount of blood loss in the group under going turbinectomy⁽³⁾.

Another study conducted by Desiderio passali et al, conducted a study which concluded that there is higher amount of pain and crusting in patients undergoing turbinectomy , In our study similar results were found , VAS score was 5.7 on average with patient under going turbinectomy and 3.2 who have not under gone turbinectomy⁽⁴⁾.

Salam M.A. conducted a study which also concluded that huge postoperative increase in air flow causes drying and crusting formation takes place.

CONCLUSION

Our study concludes that when turbinectomy is performed along with septoplasty, patients have to suffer more due to synechia formation which makes them undergo another painful procedure to release synechia. They also have more incidence of infection in the follow up period along with crusting.

When assessment of symptomatic improvement is done in patients undergoing septoplasty with turbinectomy and patients under going only septoplasty. There is found to be minor difference in improvement of symptoms in both the groups at the end of 3 months. This leads to a question , is inferior turbinectomy really worth it?.

References

1. Salama, Magdy A. Endoscopic Aided Septoplasty Versus Conventional Septoplasty. *World Journ of Med Sci* 2014; 11.
2. Haroon Y, Saleh HA, Ahmed H, AbouIssa. Nasal soft tissue obstruction improvement after septoplasty without turbinectomy. *Eur Arch Otorhinolaryngol* Feb 2013; 1-4.
3. Mathew O, Mills RP. An audit of the early complications of turbinectomy. *Ann R Coll Surg Engl* 1994; 76: 339-341.
4. Desiderio P, Passali MF, Damiani V, Passali GC, Belluci L. Treatment of Inferior Turbinate: A Randomized Control Trial. *Ann Otol Rhino Laryngol* 2003; 112: 683-8.
5. Rozsasi A, Leiacker R, Knemann S, Lindemann J, Kappe T, Rettinger G, Keck T (2007) The impact of septorhinoplasty and anterior turbinoplasty on nasal conditioning. *Am J Rhinol* 21(3):302-306
6. Stewart MG, Witsell DL, Smith TL, Weaver EM, Yueh B, Hannley MT (2004) Development and validation of the Nasal Obstruction Symptom Evaluation (NOSE) scale. *Otolaryngol Head Neck Surg* 130(2):157-163
7. Van Olphen AF (1998) The Septum. *Laryngoscope* 108(7):1025-1032
8. Berger G, Hammel I, Berger R, Avraham S, Ophir D (2000) Histopathology of the inferior turbinate with compensatory hypertrophy in patients with deviated nasal septum. *Laryngoscope* 110(12):2100-2105.
9. Baumann I (2010) Quality of life before and after septoplasty and rhinoplasty. *Laryngorhinootologie* 89(Suppl 1):S35-S45

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