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Original Research

Assessment of outcome of patients undergoing septoplasty

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ABSTRACT

Background: Nasal airway obstruction is one of the most frequent presenting complaints reported to the otolaryngologist.Septoplasty is the main surgical procedure to relieve structural nasal obstruction due to a nasal septum deviation. Hence; the present study was undertaken for assessing the outcome of patients undergoing Septoplasty. **Materials & methods:** A total of 133 patients scheduled to undergo Septoplasty were included in the present study. Hematological and biochemical investigations were done in all the patients before the starting of the study. Nasal Obstruction Septoplasty Effectiveness [NOSE] scale was used for assessing the outcome of Septoplasty. Higher score of the NOSE scale indicated greater improvement. Calculation of NOSE scale was done preoperatively, three months postoperatively and five months postoperatively. **Results:** Preoperative NOSE score was found to be 75.5. Postoperatively at 3 months, the NOSE score showed significant improvement and came out to be 33.5. There was further a non-significant reduction in the NOSE score reaching the final value of 31.9. **Conclusion:** Septoplasty results in significant improvement in quality of life and patient satisfaction in patients with deviated nasal septum.

Key words: Outcome, Rhinitis, Septoplasty

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INTRODUCTION

Nasal airway obstruction is one of the most frequent presenting complaints reported to the otolaryngologist. Deviations of the nasal septum are extremely common. Anatomic studies on human skulls revealed that 75–80% of all humans have a septal deviation to some degree.[1-3]Septoplasty is the main surgical procedure to relieve structural nasal obstruction due to a nasal septum deviation. In some cases, additional turbinate surgery is performed. Numerous studies from different health-care systems have shown that around 2/3 of patients undergoing septoplasty with or without turbinate surgery experience an improvement in nasal breathing in short- and long-term follow-up studies.[4, 5]The results of all the surgeries are not always predictable, but it would be helpful to surgeons to have data that might help in making a prognosis as to the outcome of surgery.[6, 7] Hence; under the light of above mentioned data, the present study was undertaken for assessing the outcome of patients undergoing Septoplasty.

MATERIALS & METHODS

The present study was undertaken in the department of ENT of the medical institute and it included assessment of outcome of patients undergoing Septoplasty. Ethical approval was obtained from institutional ethical committee and written consent was obtained from all the patients before the starting of the study. A total of 133 patients scheduled to undergo Septoplasty were included in the present study. Inclusion criteria for the present study included:

- Patients within the age group of 25 to 50 years,
- Patients with negative history of any known drug allergy,
- Patients with deviated nasal septum (DNS)

Preoperative evaluation of all patients was carried. Hematological and biochemical investigations were done in all the patients before the starting of the study. Nasal Obstruction Septoplasty Effectiveness [NOSE] scale was used for assessing the outcome of Septoplasty. Higher score of the NOSE scale indicated greater improvement. Calculation of NOSE scale was done preoperatively,

three months postoperatively and five months postoperatively. All the results were recorded in Microsoft excel sheet and were analyzed by SPSS software version 18.0. Mann-Whitney U test was used for assessment of level of significance. P- value of less than 0.05 was taken as significant.

RESULTS

In the present study, a total of 133 patients were analyzed. Mean age of the patients of the present study was 28.6 years. Majority of the patients belonged to the age group of 25 to 35 years. 59.4 percent of the patients of the present study were males (79 patients) while the remaining 40.6 percent of the patients were females (54 patients). Preoperative NOSE score was found to be 75.5. Postoperatively at 3 months, the NOSE score showed significant improvement and came out to be 33.5. There was further a non-significant reduction in the NOSE score reaching the final value of 31.9.

Table 1: Profile of patients undergoing Septoplasty

Parameter		Number of patients
Age group (years)	25 to 35	73
	35 to 45	41
	45 to 50	19
Gender	Males	83
	Females	70
Diabetic	Yes	15
	No	118
Hypertension	Yes	23
	No	110

Table 2: Outcome of Septoplasty

Parameter	Preoperative	Postoperative 3 months	Postoperative 5 months
NOSE score	75.5	33.5	31.9

Graph 1: Outcome of Septoplasty

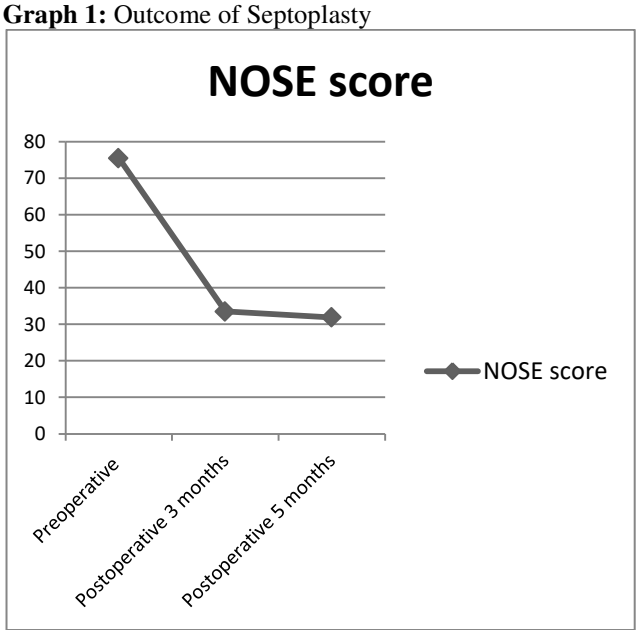

Table 3: Comparison of NOSE score at different time interval

Time interval	p- value
Preoperative Vs Postoperative 3 months	0.00 (Significant)
Preoperative Vs Postoperative 5 months	0.00 (Significant)
Postoperative 3 months Vs Postoperative 5 months	0.22

DISCUSSION

Septoplasty is one of the most frequently performed operation by otolaryngologists through the world. Aesthetic indications (e.g. deviated dorsum) are not as common as functional. The most important area for the airway is the nasal vestibule and the valve region. From the functional point of view, correction of caudal part of the nasal septum is crucial.[8, 9] Assessments with objective parameters such as rhinomanometry before and after surgery show varying results. Some factors associated with a poorer perception of the surgical result, such as younger patient age and making unplanned visits to health care within 1 month of surgery, have been identified. The extent to which the patient-rated severity of the nasal obstruction preoperatively predicts the postoperative result has not previously been studied extensively in large patient cohorts.[10, 11] Hence; under the light of above mentioned data, the present study was undertaken for assessing the outcome of patients undergoing Septoplasty.

In the present study, a total of 133 patients were analyzed. Mean age of the patients of the present study was 28.6 years. Majority of the patients belonged to the age group of 25 to 35 years. 59.4 percent of the patients of the present study were males (79 patients) while the remaining 40.6 percent of the patients were females (54 patients). Pedersen L et al identified predictors of outcome after septoplasty in 888 patients from the Swedish National Septoplasty Register. Septoplasty should be offered to patients with severe nasal obstruction and surgery should be avoided in mild nasal obstruction confirmed by both an improvement in nasal obstruction and patient expectations in their study.[11]Karatzanis AD et al assessed the effect of allergic rhinitis (AR) on septoplasty outcome in terms of subjective and objective measurements and clarify whether patients with nasal septum deviation (NSD) and allergic rhinitis (AR) benefit from septoplasty to the same extent as patients who do not have allergic rhinitis. A prospective study, with consecutive sampling of all patients undergoing septoplasty from June 2005 to February 2007, conducted in a tertiary care otorhinolaryngologic clinic. The surgeon should proceed with caution when managing patients with allergic rhinitis and nasal septum deviation.[12]

In the present study, preoperative NOSE score was found to be 75.5. Postoperatively at 3 months, the NOSE score showed significant improvement and came out to be 33.5. There was further a non-significant reduction in the NOSE score reaching the final value of 31.9. Gandomi B et al compared the outcome of septoplasty in our patients

with previous reports. They found some different outcomes of septoplasty at our center compared with the reports in the literature. One of the major differences between this and previous studies is in the mean age of patients undergoing surgery, 22.44 years in our study vs more than 40 years in most studies. In this study, 86 patients with septal deviation were asked using an outcomes instrument (the Nasal Obstruction Symptom Evaluation scale) before and 3 and 6 months after septoplasty. Seventy-seven patients (89.5%) reported a subjective improvement in their nasal obstruction, which is more than the experience of most authors. There was a significant improvement in mean Nasal Obstruction Symptom Evaluation score at 3 months after septoplasty, and some symptom improvement continued to 6 months. They concluded that younger patients who have nasal obstruction with septal deviation benefit more from septoplasty.[13]Stewart MG et al assessed disease-specific quality of life outcomes after nasal septoplasty in adults with nasal obstruction. They conducted a prospective observational outcomes multicenter study with 14 sites and 16 investigators, including private practice and academic settings. Patients had had septal deviation and symptomatic nasal obstruction for at least 3 months, and medical management had failed. In patients with septal deformity, nasal septoplasty results in significant improvement in disease-specific quality of life, high patient satisfaction, and decreased medication use.[14]

CONCLUSION

Under the light of above obtained data, the authors conclude that Septoplasty results in significant improvement in quality of life and patient satisfaction in patients with deviated nasal septum. However; further studies are recommended.

REFERENCES

1. Jessen M, Ivarsson A, Malm L. Nasal airway resistance and symptoms after functional septoplasty: comparison of findings at 9 months and 9 years. ClinOtolaryngol Allied Sci. 1989;14(3):231–234.
2. Haye R., Tarangen M., Shiryaeva O., Døsen L. K. Evaluation of the nasal surgical questionnaire for monitoring results of septoplasty. International Journal of Otolaryngology. 2015;2015:7
3. Siegel N. S., Gliklich R. E., Taghizadeh F., Chang Y. Outcomes of septoplasty. Otolaryngology - Head and Neck Surgery. 2000;122(2):228–232.
4. Bezerra T. F., Stewart M. G., Fornazieri M. A., et al. Quality of life assessment septoplasty in patients with nasal obstruction. Brazilian Journal of Otorhinolaryngology. 2012;78(3):57–62.
5. Toyserkani NM, Frisch T. Are too many septal deviations operated on? A retrospective patient's satisfaction questionnaire with 11 years follow-up. Rhinology. 2012;50(2):185–190.
6. Konstantinidis I, Triaridis S, Triaridis A, Karagiannidis K, Kontzoglou G. Long term results following nasal septal surgery. Focus on patients' satisfaction. AurisNasus Larynx. 2005;32(4):369–374.
7. Karatzanis A. D., Fragiadakis G., Moshandrea J., Zenk J., Iro H., Velegrakis G. A. Septoplasty outcome in patients with and without allergic rhinitis. Rhinology. 2009;47(4):444–449.
8. Velasco L. C., Arima L. M., Tiago R. S. L. Assessment of symptom improvement following nasal septoplasty with or without turbinectomy. Brazilian Journal of Otorhinolaryngology. 2011;77(5):577–583.
9. Dinis PB, Haider H. Septoplasty: long-term evaluation of results. Am J Otolaryngol. 2002;23(2):85–90.
10. Holmstrom M. The use of objective measures in selecting patients for septal surgery. Rhinology. 2010;48(4):387–393.
11. Pedersen L, Schiöler L, Finjan S, et al. Prognostic factors for outcome after septoplasty in 888 patients from the Swedish National Septoplasty Register. Eur Arch Otorhinolaryngol. 2019;276(8):2223–2228. doi:10.1007/s00405-019-05440-6
12. Karatzanis AD1, Fragiadakis G, Moshandrea J, Zenk J, Iro H, Velegrakis GA. Septoplasty outcome in patients with and without allergic rhinitis. Rhinology. 2009 Dec;47(4):444-9.
13. Gandomi B1, Bayat A, Kazemei T. Outcomes of septoplasty in young adults: the Nasal Obstruction Septoplasty Effectiveness study. Am J Otolaryngol. 2010 May-Jun;31(3):189-92.
14. Stewart MG1, Smith TL, Weaver EM, Witsell DL, Yueh B, Hannley MT, Johnson JT. Outcomes after nasal septoplasty: results from the Nasal Obstruction Septoplasty Effectiveness (NOSE) study. Otolaryngol Head Neck Surg. 2004 Mar;130(3):283-90.