

ABSTRACT

OBJECTIVES

1. Evaluate the improvement in nasal obstruction following septoplasty in allergic rhinitis patients with associated deviated nasal septum using *Nasal Obstruction Symptom Evaluation (NOSE) Scale* and measure the extent to which this outcome is affected by allergic rhinitis status
2. To clarify whether patients with DNS and AR benefit from septoplasty
3. Evaluate the effect of septoplasty on the clinical course of allergic rhinitis and improvement in quality of life by comparing Allergic Rhinitis Control Test Questionnaire (ARCT)

STUDY DESIGN

A prospective study with consecutive sampling of all allergic rhinitis patients with symptomatic deviated nasal septum undergoing conventional septoplasty during the study period.

METHODS

All participants were assessed the severity of their symptoms based on a Nasal Obstruction Symptom Evaluation (NOSE) Scale prior to and a month following septoplasty. Patients were divided into subgroups according to ARIA guidelines of allergic status, comparisons were made. A five item Allergic Rhinitis Control Test (ARCT) questionnaire was given to allergic patients according to ARIA 2007 guidelines who underwent septoplasty prior to surgery and at the end of two months following surgery. Improvement in the allergic status following surgery was evaluated.

RESULTS

The mean decrease in NOSE score following septoplasty overall was (pre-operative 16.03, postoperative 9.58, $p < 0.001$) analysed to be statistically significant (significant at 1% level, 99% CI). This clearly shows that in allergic patients with deviated nasal septum, irrespective of the allergic status septoplasty significantly improves the nasal obstruction as shown by the decrease in NOSE score to a statistically significant extent.

ARCT scores were recorded pre operatively and at the end of two months post operatively and results were analysed. Pre operative score was

(mean $12.77 \pm$ SD 1.024) and the post operative score (mean $21.8 \pm$ SD 0.914) with p value < 0.001 , significant statistically at 1% level, 99 % CI. This clearly shows that in allergic rhinitis patients with symptomatic deviated nasal septum, septoplasty improves the quality of life pertaining to allergy to a statistically significant extent.

CONCLUSION

The present study suggests that in allergic rhinitis patients with symptomatic deviated nasal septum or in other words septoplasty performed in allergic rhinitis with coexistent deviated nasal septum not only improves the nasal obstruction significantly, but also there is a remarkable improvement in the control of allergic rhinitis following surgery.

Keywords: Septoplasty, Deviated nasal septum(DNS), Allergic rhinitis(AR), NOSE score, ARCT score