

On analysis of endoscopic septoplasty vs. endoscopic septoplasty with inferior turbinoplasty-pre-operative vs. post-operative total symptom score distribution table, it was evident that the difference in mean pre-operative vs. post-operative total symptom score is 4.26 score points in endoscopic septoplasty and 10.40 score points in endoscopic septoplasty with inferior turbinoplasty group ($p < 0.001$) [10].

DISCUSSION

In patients with a deviated nasal septum and inferior turbinate hypertrophy, the study compared the outcomes of septoplasty and septoplasty with inferior turbinoplasty utilising a microdebrider. According to the inclusion and exclusion criteria, patients were accepted into the study. Patients with allergy symptoms or symptoms that were connected to allergies were excluded from the trial. Patients with co-morbid conditions were excluded from the study.

There was a 36.3% improvement in the control group who underwent only septoplasty as compared to the test group who underwent septoplasty and turbinoplasty with a 77% improvement in symptoms. Patients were taken as the control and test group by randomization. The study is a double blinded study.

Total Symptom Score

In our study the difference in mean pre-operative vs. post-operative total symptom score in endoscopic septoplasty with inferior turbinoplasty group compared to endoscopic septoplasty group was meaningfully high and significant. Increased mean pre-operative vs. post-operative difference in total symptom score in endoscopic septoplasty with inferior turbinoplasty group compared to endoscopic septoplasty (mean increased difference of 6.14 score points, 59% higher).

Our patients were followed up for a period of 3-6 months. The patients who underwent septoplasty with inferior turbinoplasty had no crusting or atrophic changes. In November 1999, expert's did a similar study on 120 patients and came to a conclusion that "microdebrider assisted submucous resection of inferior turbinates" is safe to achieve turbinate reduction in patients with nasal obstruction which is caused due to turbinate hypertrophy. Crusting can be prevented by preservation of mucosa. It also helps in early healing. Using of a microdebrider helps in precise tissue removal and reducing the size of the inferior turbinate.

A study which was conducted by experts on 29 patients with chronic hypertrophic rhinitis was treated with endoscopic inferior turbinoplasty and an average increase in nasal airflow was observed. There was no permanent synechia or atrophic change which is similar to our study.

Experts observed that there was a 91% improvement in the nasal obstruction as compared to 100% improvement in our study. They also proved that powered endoscopic turbinoplasty alongwith endoscopic septoplasty or sinus surgery is a surgical option for disease clearance. Another study which was done by group of experts did observe that there was a satisfactory improvement in nasal obstruction post septoplasty with inferior turbinectomy.

In 2010, experts published a study that showed that inferior turbinate surgery has positive outcomes, and we found that the test group used fewer decongestants and other medicines postoperatively than the control group. As a result, patients with turbinate hypertrophy who do not respond to conventional treatment should consider inferior turbinate surgery.

Ilium P did a study on 45 patients in 1993 and concluded that there was no subjective improvement from inferior turbinoplasty on the opposite side of the septal deviation whereas in our study there is a symptomatic improvement when septoplasty is combined with inferior turbinoplasty.

CONCLUSION

Cases of deviated nasal septum with symptoms of nasal obstruction were treated surgically by both septoplasty and submucous resection of septum. Nowadays septoplasty and Submucous resection of septum is combined with inferior turbinoplasty for better outcome. Precise tissue removal can be done in inferior turbinoplasty using a microdebrider with the help of endoscope as the visualization is better. Inferior turbinoplasty is advised as in our study there is an excellent improvement in the symptoms postoperatively as observed during follow up in patients undergoing septoplasty with inferior turbinoplasty as compared to the control group who underwent only septoplasty.

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