Objective and subjective assessment of nasal patency on patients for rhinoseptoplasty

F. Jakimovska, V. Kaev, M. Cakar, D. Dokic
University ENT Clinic, University Clinic of Pulumology and Allergology Skopje, Macedonia

INTRODUCTION

The septum and outer nose form a unit. The septum has a supporting function under the lateral cartilage with which it forms a cartilage union called septolateral cartilage. It is responsible for the projection and protection of the cartilaginous nose. A deformed septum is the most common cause of a nasal obstruction. The pathological change in the septum is seen in nearly all nasal deformities. That is why septal correction is a fundamental component in both functional and aesthetic aspects of rhinoseptoplasty. (1) The indication for sepal surgery is not a deviated septum in itself, but rather only a deviation which causes elevated airway resistance. This indication can only be made using preoperative functional diagnosis. (2) Active anterior rhinomanometry is well standardised measurement of nasal aerodynamic resistance. Acoustic rhinometry gives a geometric measurement of the nasal cavity and information on the localization of the resistance. Nasal visual analog scale (VAS) is validated and responsive instrument for evaluating patients’ subjective experience with nasal patency. (3)

MATERIAL and METHODS

A total of thirty six patients for rhinoseptoplasty were assessed using acoustic rhinometry, active anterior rhinomanometry and visual analog scale (VAS). After definition of a benchmark between physiological (non-deviated) and pathological (deviated) nasal resistance (NAR) and minimal cross-sectional areas (MCA1 and MCA2) group differences were calculated and correlations analysed. They were evaluated pre and post decongestion of nasal mucosa with oxymetazolinum nasal spray.

RESULTS

The significant correlations (Spearman corelation test) were assessed before and after decongestion between subjective scoring and objective measures of nasal patency in non-deviated group. The significant correlations were seen between subjective nasal obstruction and objective measures after decongestion, except for MCA2D in deviated group (light/moderate).

CONCLUSION

The significant correlations of benchmarks between subjective symptom score and objective measures after decongestion were useful to be distinguish physiological and pathological septal deviation. Nasal function should be assessed in all preoperative rhinoplasty patients. However, the objective methods has proven to be reliable for assessment of nasal patency and are valuable tools for clinical purposes.

REFERENCE: