
SUMMARY

Nasal obstruction is a very common problem as it is the presenting symptom of a large number of patients in otolaryngology practice. Nasal obstruction can be due to variety of mucosal and anatomical factors and many patients both play a role. The main anatomic causes of diminished nasal patency are deviations of the septum and insufficiency of the internal or the external nasal valves.

Nasal valve collapse is the result of various causes. One of the most important is the failure of the lateral structures of the nose during rhinoplasty**.** Other causes include trauma and congenital flaccidity of the upper lateral cartilage. The malfunctioning of the valve is responsible for nasal obstruction and respiratory difficulties, generating problems of both static and dynamic nature**.**

Our study included 30 patients selected from Benha university hospital out patient clinic in the period from March, 2008 to March 2010. Our patients complained from nasal obstruction due to nasal valve incompetence, all of them were positive Cottle sign.

Our patients were divided into two groups:

Group (A): included 15 patients with nasal valve incompetence and the internal nasal valve had been reconstructed by the spreader graft.

Group (B): included 15 patients with nasal valve incompetence and the internal nasal valve had been reconstructed by the splay conchal graft.

In each group we proceeded as the following:

A- Preoperative assessment

1- History and clinical examination (general and ENT) including Cottle and modified Cottle test.

2- Photographic assessment

3- Acoustic rhinometry

B- Operative procedures

The INV reconstructed through an open rhinoplasty (external) approach either by spreader graft as in group (A) or by conchal splay graft as in group (B)

B- Postoperative assessment

Follow up of the patient in regular visits in 2, 4, 6 weeks and 2, 4, 6 months after surgery and proceeded as the following

1- clinical examination and detecting the grade of improvement in nasal breathing , repeating the Cottle test and recording the data which obtained at 6 months postoperatively.

2- Reassessment aesthetically through photographs 6 months postoperatively

3- Repeating the A.R. measurements 6 months after surgery.

Our results showed improvement in both groups either in subjective sensation of breathing and in acoustic rhinometry measurement and only 2 patients in each group were not satisfied as regarding the results of improvement.

Our results showed minimal complication such as skin allergy or mild haematoma. No major complication such as hemorrhage, infection or extraction of the graft was detected.

We concluded that either technique (SG or CSG) is valid for correcting the INV incompetence but with application of the technique in its indicated and suitable cases to obtain the best results and the acoustic rhinometry is good objective test to evaluate the results of each method.