SOME ASPECTS OF RHINOPLASTY

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This paper deals with some aspect of rhinoplasty done by both open and closed techniques. The findings are based on 200 cases of Rhinoplasty carried out by the closed procedure and 100 cases done by the open procedure. Available current literatures including our previous publications earlier in this field have also been reviewed. Emphasis on collaborative approach to management of nasal deformities with plastic surgeons and incorporation of various rhinoplastic procedures in the postgraduate training programmes of both otolaryngology and plastic surgery is made to achieve both functional and cosmetic results optimally in rhinoplasty in India.

INTRODUCTION

Rhinoplasty is a challenging operation because of it’s goal to both create a pleasing appearance of the nose and preserve or improve its function optimally. Deformities that affect the dorsum and shape of the profile concern the patients most for which they usually seek aesthetic nasal surgery. The nasal septum’s role in the form and function of the nose cannot be overemphasised as Dr. Irving Goldman said: ‘As the septum goes, so goes the nose.’

Rhinoplastic surgeon must adopt the surgical skills for lowering, raising, narrowing and straightening the dorsum and sculpturing the nose to achieve a pleasing result. Detailed anatomic and Physiologic aspects of the septum and the interior of the nose including the nasal valve areas are essential knowledge for a rhinoplastic surgeon. We have done more of closed techniques of rhinoplasty during last 15 years although in the later 7 years we were engaged also in open rhinoplasty. This paper is mainly based on our personal experience in doing 300 rhinoplasties with review of current literature.

Evolution of the procedure: Open or external rhinoplasty is an old idea which has been described by Indians in the Sushruta Ayurveda Circa 600 B.C. Although Jacwques Joseph’s first case was also an external reduction rhinoplasty, Rethi described a high transcolumellar incision to expose the tip. Secret in 1956 extended the columellar incision to include the nasal pyramid and he called it nasal decortication technique. During the last decade external technique has been extended to include septoplasty and many other rhinoplastic procedures by different authors. It has now attained its popularity despite opposition by few authors, for its possible columellar scar.

Like intercartilaginous, transcartilaginous and cartilage delivery incisions in the closed technique of rhinoplasty, open technique also describe the method of operative approach for exposure only. Rest of the corrective procedures for various deformities are similar in surgical anatomic steps and physiologic that are required in both open and closed techniques for rhinoplastic procedures.

The main difference is that in open technique, the advantage of direct visual control is exploited in performing the surgical step as opposed to tactile one in the closed technique of rhinoplasty.
INDICATION AND CONTRA-INDICATION

1. Most deformities of the nose e.g. crooked, saddle nose, tip-difformity, valve dysfunction due to thickened septum, septal perforation, congenital nasal deformities e.g. congenital sinus or bulbous nose etc. Revision rhinoplasty besides sphenoid ethmoid surgery through external rhinoplasty approach. In other words, “open rhinoplasty is the procedure of choice” unless the surgeon believes that he can obtain the same results with a closed method\(^{10, 15, 16}\).

2. If the patient does not want any form of external incision, it must not be done. Other contra-indications include (a) previously scared columella and (b) inexperienced surgeon with the open technique\(^ 10\).

**Fig. 1**: Showing pre and postoperative photographs of a patient who underwent “Extended Septoplasty” for limited laterisation of cartilaginous dorsum and tip with deviated septum. Both airway functional improvement and cosmetic results were very good postoperatively.

THE SEPTUM

The importance of the nasal septum in rhinoplasty has already been stated. The major structures of the septum are perpendicular plate of the ethmoid posteriorly, the quadrangular spetal cartilage anteriorly and the vomer inferiorly. The medial crurae of alar cartilages, the maxillary crest and palatine bone complete the nasal septum.

Nasal septal deformities can be classified into 4 categories as follows: (a) simple deviation (b) spur formation, (c) subluxation and (d) tension septum.

More serious injuries such as (a) caudal border fractures, (b) septal crushes and (c) saddling with loss of septal height, need to be added.

EVOLUTION OF SEPTAL SURGERY

Since 1904 when Killian modified the Free’s total resection of nasal septum and described the submucous resection of the nasal septum retaining a caudal and dorsal struts, it (SMR) became a popular procedure for correction of deviated nasal septum. In the last two decades septoplasty has almost replaced this procedure because of its various weakness including saddling of nasal dorsum\(^ {17-19}\).

Septoplasty alone or as component of septrhinoplasty has evolved to a standard technique today in India\(^ {13, 17, 19}\). In the recent decade, total reconstruction of the septum by nasal decortication technique has become popular especially in patients having crushed septum following injury. It provides a better reconstructions of the septum\(^ {11, 12, 16}\).

This technique can be combined with osteotomie or reduction of dorsum for correcting mal alignment of nasal dorsum in crooked or hump nose patients. The procedure has been used in children also\(^ {11, 16}\).

THE DECORTICATION (OPEN) TECHNIQUE OF RHINOPLASTY

A transverse midcolumellar incision of a V-shape or an inverted-V shape is made and it is carried around to or just posterior to the caudal margin of the medial crura. The incision, rest of operative technique in the dorsum for soft-tissue dissection and mobilisation and osteotomies such as medial, paramedian, lateral transverse are similar to those employed in closed technique with the only difference being that it is done under direct visual control\(^ {4-12}\). In the case of septrhinoplasty as standard septoplasty can be added by a different incision or it can be done by separating the medial crura and elevatin the nasal septal from it caudal end across the membranous septum.