

Tip rhinoplasty in cleft lip nasal deformity.

Introduction

Rhinoplasty occupies a unique position in facial plastic surgery due to the central position of the nose in the face and the vital function of the nose. (1) Cleft lip nasal deformities are challenging problems in all aspects. The continued growth of the nasal septum on one hand and the arrested cleft-side maxilla on the other, subjects the nasal cartilage to undue forces, splaying it apart. The resultant deformity possesses considerable psychological burden on children born with unilateral cleft lip ⁽²⁾.

The cleft lip nasal deformities include a group of facial defects that may include depressed ala of the nose and the lower lateral cartilage on the cleft side. The nasal tip is deviated to the non cleft side. The columella is shortened on the cleft side and becomes obliquely oriented .

It is important to identify the aim of the rhinoplasty in cleft lip nasal deformities as to restore the nasal symmetry, improvement of the naso-labial and naso-facial relationship with minimal evidence of surgical intervention as well as the functional objectives as patent air way, proper position of the maxilla and achievement of normal speech. (4).

Rhinoplasty in cleft lip nasal deformities could be performed either primary or secondary after repair of the cleft lip. Primary correction has been reappraised in the last two decades having particular advantages as more symmetrical nose and better appearance in the early life. Even when rhinoplasty is re-required after

nasal growth is complete, the deformity is less severe and more amenable final results (5).

The secondary surgery to further modify the nasal shape is often necessary in the teen years. The secondary deformities include depressed nasal tip with diastatic lower lateral cartilage, wide alae, large nostrils short columella, wide prolabium with lack of philtral and Cupid's bow definition, shallow buccal sulcus, tight upper lip, irregular scars and central vermilion insufficiency (6).

If the nasal deformity is minimal, usually lobule rhinoplasty modified John potter rhinoplasty, is enough. However, if the deformity is so significant with maxillary skeletal deficiency, alar base should be augmented first, usually with alveolar bone graft, then definitive septorhinoplasty is performed (7).

Aim Of The Work

The aim of this study is to study the different surgical options for reconstruction of the nasal tip in cases of cleft lip either primary or secondary, evaluate of their esthetic and functional results and demonstrate the subjective satisfaction for each case .

Subjects and methods:

In our study, twenty patients having cleft lip nasal deformity, either primary or secondary deformities, will undergo rhinoplasty to correct the nasal deformity in which the definition and position of the nasal tip will be the corner stone in evaluation of the net ethnic result. These patients will be managed in Kasr Eleni and Benha University hospitals. All patients will have informed consent that they will be involved in the study.

Preoperative assessment:

1-Clinical parameters: All patients will undergo complete history taking and clinical examination and the nasal deformities will be recorded in details.

2-Preoperative investigations:

a-CBC

b-Coagulation profile.

c-Other investigations according to the age and the medical status of the patient.

Follow up:

Evaluation of the outcome as regard to :

Subjective satisfaction: either excellent, good , fair or poor.

Objective cosmetic appearance: via comparing the pre-and post-operative photos.

Nasal tip shape and site.

Development of secondary deformity.

Post operative complications: infection, disruption, and necrosis.

Functional improvement of the pre-operative symptoms, as difficulty of breathing or change in the voice, if present.

Statistical analysis

-The collected data will tabulated and presented in suitable figures

-Quantitative data will be summarized using mean and standard deviation, while, qualitative data by using frequency and percentage.

-Data will be analyzed by the aid of soft ware package of SPSS using suitable statistical tests. The accepted level of significance in this work will be 0.05 ($P < 0.05$ will be considered significant).

Beneficiaries:

All patients that will undergo our procedures will have direct benefit from the operation in the form of having correction of their nasal deformities aiming to improve their esthetic appearance as well as any functional symptoms.

Dissemination of results:

Our results and recommendations will be sent to the library of our faculty and our university as well as to our corresponding departments of pediatric and plastic surgery in the other universities. Last, our outcome and recommendations will be published in the peer-reviewed journals.

