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CASE REPORT

Twin Alar Rims: A Rare Type of Alar Rim Deformity and Its Correction Using "SAIL" Technique

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Abstract The beauty and golden proportions of a face are largely determined by the shape and size of the nose one inherits. When the subunits of the nasal structure are considered, the width and structure of Ala and Alar rims determine to a large extent the beauty of the nose itself. Various classifications exist to evaluate the alar rim deformities that are inherited as well as iatrogenic, but occurrence of twin alar rims as a deformity has rarely been reported. This article reports the deformities of drooping tip, hanging columella, and asymmetry of alar rims along with twin alar rims. All the problems were addressed with an open rhinoplasty approach and combining the alar incision with the sail technique to achieve the correction of twin alar rim.

Keywords Alar rim · Sail excision · Hanging columella · Twin ala

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Introduction

Rhinoplasty or reshaping of the nose is by far one of the most common facial plastic procedures sought by men and women. Nasal deformities may be inherent or iatrogenic, and according to the literature, alar disharmony is commonly observed after rhinoplasty procedures [1].

The most famous classification of alar–columella deformities is given by Gunter et al. where he described the deformities in six classes. These deformities can be assessed on the profile view by connecting a line from apex of nostril outline to its nadir dividing the nostril into equal halves [2]. In our case, a rare kind of deformity of twin ala or extra alar rim posed a challenge, along with a drooping tip and hanging columella.

For this rare deformity, the 'sail' incision [3] was incorporated along with trans-columellar open rhinoplasty incision and the deformities were corrected.

Case Report

A young female patient around twenty-two years reported to our practice with chief complaint of double nose, hampering her self-confidence. On initial examination, a very rare kind of anomaly with presence of two alar rims on each side was seen (Fig. 1) along with a drooping wide tip and hanging columella (Fig. 2).

On detailed examination, an extra inner alar rim was present around 8 mm–1 cm medial to the normal alar rim in the nasal vestibular region, bilaterally. On palpation of this deformity, the inner alar rim had soft tissue components of skin and subcutaneous tissue. No cartilaginous component within the inner alar rim was palpated.

Fig. 1 Preoperative basal view showing the twin alar rims

Fig. 2 Preoperative profile view showing the parrot beak deformity

The width of the inner alar rim was around 1 cm at the base and it tapered to around 2 mm superiorly. The tip of the inner alar rim was not overlapping the region of lateral wing of medial crura.

A trans-columellar open rhinoplasty incision was used to gain access for correction of tip and the overhanging columella. Careful dissection was carried out to dissect the medial crura bilaterally and evaluate the length of the septum. Minimal septal shortening was carried out, and interdomal and transdomal sutures were placed (Fig. 3) for tip plasty. The medial crura on both sides were sutured to the caudal end of the septum, and the flap of open rhinoplasty was repositioned. Dissection was done towards the nasal spine and sublabial division of depressor nasi muscle was released.

For the inner alar rim, markings similar to 'sail incision' were placed with the tip of the incision starting superiorly and the incision then running inferiorly, widening as it reaches the base of the deformity covering the entire width and length of the inner alar rim. The incision was carefully planned at a depth to preserve adequate vestibular depth and distance for the normal alar rim. Careful dissection and resection of the extra alar rim were then carried out (Fig. 4).

Six months post-operative follow-up shows reduced columellar show, well-supported tip (Fig. 5) and clean patent nostrils (Fig. 6).

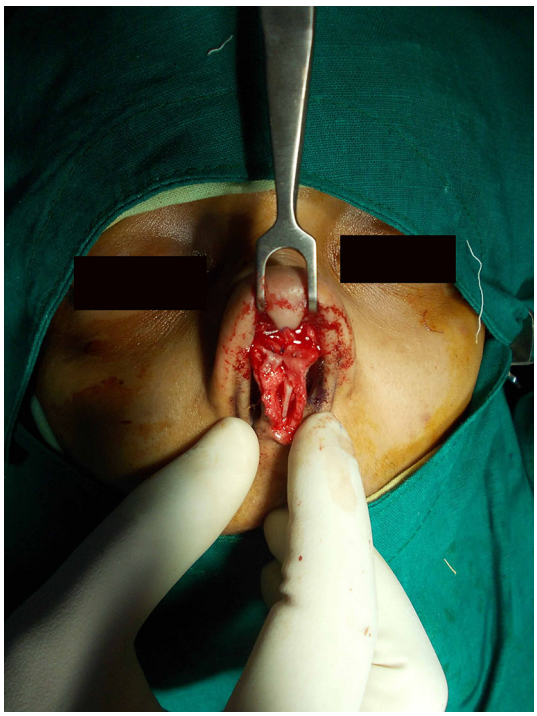

Fig. 3 Intraoperative view of open rhinoplasty

Fig. 4 Markings of SAIL technique for excision

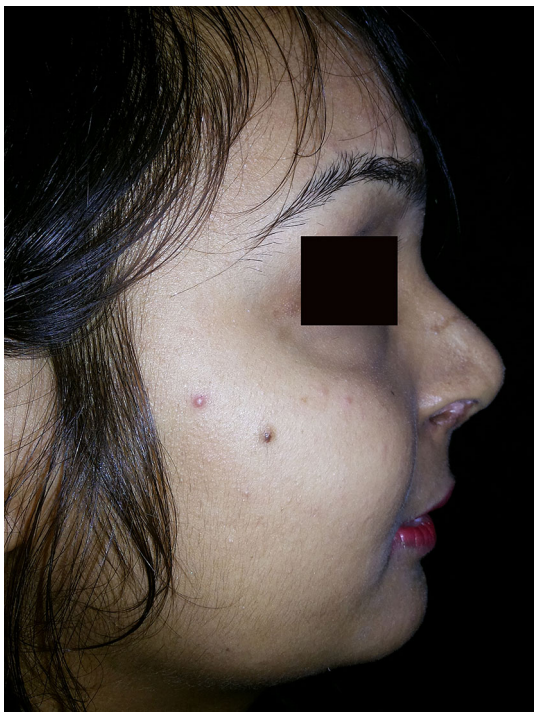

Fig. 5 Posteoperative profile view

Discussion

Rhinoplasty is one procedure which is not only technically challenging but has intrigued surgeons since ages with its dynamic cartilage and soft tissue components. Therefore, a detailed evaluation and recognition of the existing deformities and the procedures required for the correction of each concerned area should be carefully planned preoperatively.

The alar–columellar complex is assessed using Gunter's classification [2]. The various reasons for 'columella show' have been described and the complexity of the procedure depends on the actual anatomic reason for the hanging columella.

Fig. 6 Postoperative basal view

Direct and indirect repairs have been suggested like trimming of composite wedge of skin and cartilage of medial crura, trimming of caudal septum, elliptical excision of membranous septum, have been suggested [4].

The dynamics of nasal tip have been better understood since the explanation of functional tripod concept by Anderson [5] where two lateral cartilages and combined medial crura forms the three legs of tripod.

Identification and correction of alar rim deformities contributes significantly to the overall aesthetic proportional and a pleasing nasal structure. In this particular case, the deformity presented was very unique and a correction for this type of deformity has not been reported in the literature.

Since the anomalous inner alar rim was present in the alar vestibular region, the 'sail' incision technique proved to be a guide for dissection and excision of this rare alar deformity.

A one-year post-operative picture shows no scar contracture or compromise in functionality, and patient was happy and satisfied with the results.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflicts of interest.

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