

Surgical Correction of Retracted Nostril Rim with Auricular Composite Grafts and Anchoring Suspension

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Abstract. Among concerned nasal appearances, a deformity with supero-lateral displacement of the nostril rim, called retracted nostril rim or elevated nostril rim is commonly seen and is considered one of the most difficult types of cases to treat aesthetically. A new surgical method for treating retracted nostril rim was performed in 10 patients, using the combination of auricular composite graft, internal fixation with a retainer, and external continuing suspension with anchoring sutures. The procedure was successful in maintaining the grafted cartilage in the ideal position and in avoiding recurrence of retraction or elevation of the constructed alar rim. The presented method merits consideration as a standard operative approach for correction of retracted nostril rim.

Key words: Elevated nostril rim—Retracted ala—Cartilage graft—External suspension—Retainer

The shape of the nostril rim is a sensitive topic, especially among women. Retracted or elevated (supero-lateral displacement) nostril rim occurs congenitally, or iatrogenically due to scar contracture after various kinds of rhinoplasty. Gunter et al. [1] previously suggested a definition of retracted ala as a deformity characterized by an alar rim to nostril long axis distance of more than 2 mm. Retracted alar rims make the nostrils appear too big, and nasal hair be seen from oblique and lateral views. As for the unilateral cases, the most common complaint is a marked difference in the size and shape of the nostril

rim. Morphologically, retracted nostril rims can be classified into two types: Type I includes those cases where the nostril rim is completely displaced supero-laterally, and the nasal cavity can be seen from the frontal view. Type II includes those cases where part of the nostril rim is supero-laterally displaced and appears to be notched. Type I occurs congenitally and is usually bilateral, whereas type II occurs both congenitally and iatrogenically, and iatrogenic cases involve usually only one side.

Although retracted nostril rims are seen frequently, and there have been several surgical techniques and modifications for it, it is still considered one of the most difficult nasal deformities to treat. Meyer and Kesselring [2] introduced a method for lowering the alar rim with a graft of alar cartilage strip, and Ellenbogen [3] modified the method as a combined technique with a local skin flap and a cartilage graft (septal, lower lateral, or auricular). Ellenbogen's method, however, left a raw surface on the internal mucosa, which could lead to postoperative complications such as distortion, retraction, and protrusion of the grafted cartilage. Guyuron [4] used an internal V-to-Y advancement with or without a cartilage graft for the severe alar retraction, and Rohrich et al. [5] utilized alar contour grafting with septal cartilage. Constantian [6] used Sheen and Sheen's method [7] with minor modifications and showed relatively successful results by using skin and cartilage composite grafts harvested mainly from the auricle for secondary or tertiary rhinoplasty. Based on our experiences, insufficient improvements or postoperative retractions can be seen, especially in severe cases of retracted alar rim deformity or in the cases with scarring.

The authors modified the previously mentioned methods to avoid postoperative retraction of the nostril rim by combining auricular composite grafts and postoperative anchoring suspension.

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