

Subcutaneous Nasolabial Flap for Eliminating Depressed Nasal Floor in Adult Cleft Rhinoplasty: Technical Note

Amin Rahpeyma, DDS*
Saeedeh Khajehahmadi, DDS†
Arman Torabizadeh Siraji‡

Summary: Depressed nasal floor extension into the nostril in cleft patients is difficult to solve. Suggested ways for solving this problem need skin incisions other than routine open rhinoplasty incisions. Nasolabia subcutaneous flap makes the infrastructure in depressed nasal floor in cleft patients. Alar advancement and medial nasal floor triangular flap cover it. (*Plast Reconstr Surg Glob Open* 2015;3:e410; doi: 10.1097/GOX.0000000000000390; Published online 3 June 2015.)

In unilateral cleft lip/palate (CLP) patients, the nasal floor in cleft side is depressed. This depression sometimes extends to nostril sill. This unsightly deformity does not resolve with routine rhinoplasty techniques. Suggested ways are skin island pedicled flap from unaffected nostril, nasolabial flap, transposition flap from the skin, lateral to the ala, and finally composite chondrocutaneous graft from the auricle.¹⁻³ All of these methods need skin incisions other than those that are used in routine rhinoplasty procedures.

Subcutaneous nasolabial flap is a good alternative for reconstruction of nasal floor in unilateral CLP patients.

*From the *Oral and Maxillofacial Diseases Research Center, Department of Oral and Maxillofacial Surgery, School of Dentistry, Mashhad University of Medical Sciences, Mashhad, Iran; †Dental Research Center, Department of Oral and Maxillofacial Pathology, School of Dentistry, Mashhad University of Medical Sciences, Mashhad, Iran; and ‡Department of Oral and Maxillofacial Surgery, Oral and Maxillofacial Diseases Research Center, Faculty of Dentistry, Mashhad University of Medical Sciences, Mashhad, Iran.*

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SURGICAL TECHNIQUE

At the end of rhinoplasty, with the surgical blade (no. 15), the alar base is released from the paranasal skin and subcutaneous tunnel is created medial to the nasolabial fold. A triangular thin flap (2- to 3-mm thickness) is created, with the base positioned at alar base and the apex extending along the nasolabial fold.

Depressed scar in floor of the nose is released by elevating 2 triangles shared in 1 line coincident with the center of depressed nasal floor.

Superiorly based medial nasal floor triangular flap is elevated while distal triangular flap from nasal floor is discarded. Subcutaneous nasolabial flap is



Fig. 1. Depressed nasal floor.

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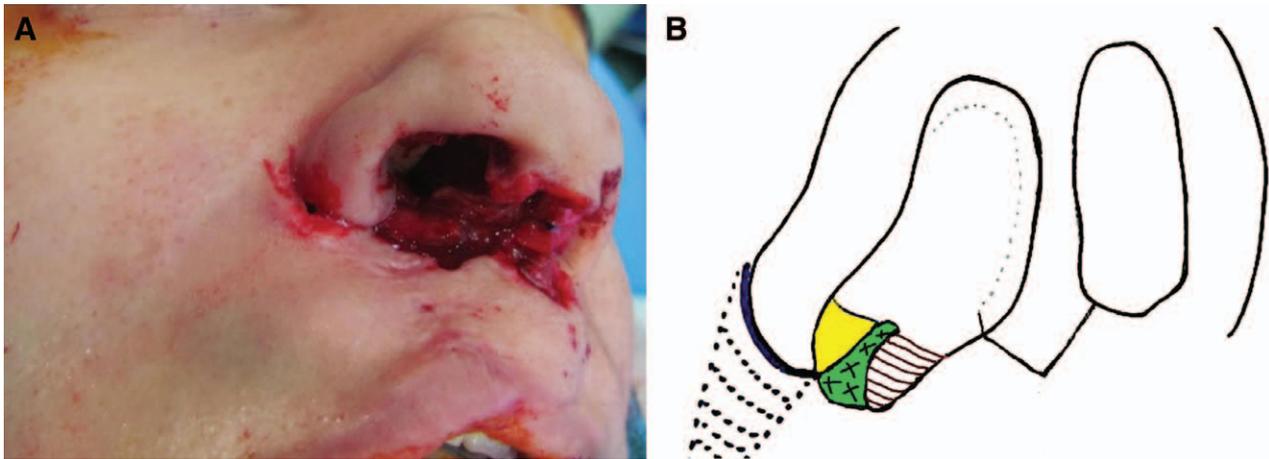


Fig. 2. A, Subcutaneous nasolabial flap. B, Schematic picture of medial and lateral nasal floor flaps, alar rim incision, and subcutaneous nasolabial flap. Nasolabial subcutaneous flap makes the infrastructure and medial nasal floor flap covers it. Lateral triangular nasal flap is discarded and ala is advanced medially.



Fig. 3. Postoperative photograph 6 months after surgery.

sutured to the columella and the alar base is advanced medially (Fig. 1). Then, the superiorly reflected medial nasal floor triangular flap is replaced back to the nasal floor (Fig. 2).

DISCUSSION

Nasal floor reconstruction at the same level as unaffected nostril in unilateral CLP patients is the goal. During the lip closure period in infancy, nasal floor flaps are designed for this purpose.⁴ During alveolar cleft bone grafting, bone height in grafted alveolar cleft ideally should be equal to the unaffected side.⁵

In some patients, however, the nasal floor remains depressed despite the alveolar cleft bone grafting, which extends to the nostril rim.

Suggested technique has not any extra skin incision other than those that are used for routine

rhinoplasty. It can effectively restore the nostril rim equal to unaffected side, in the height (Fig. 3). The authors have another experience with this technique in alveolar cleft bone grafting when the nasal floor is difficult to reconstruct.⁶ The authors have operated on 3 other adult cleft patients with depressed nasal floor by this technique, without the need for further revision. There is no age limitation for this procedure because a subcutaneous alar base flap to restore symmetry of the ala in primary cleft lip-nose repair has been reported.⁷ The presented technique needs z-plasty in nasal floor, discarding the distal triangular mucosal flap and advancing the flared alar base over the raw surface of subcutaneous nasolabial flap.

CONCLUSION

Subcutaneous nasolabial flap is a simple effective technique to eliminate nasal floor depression in unilateral CLP patients.

Saeedeh Khajehahmadi

Dental Research Center of Mashhad
University of Medical Sciences
Vakilabad Boulevard, Mashhad, Iran
E-mail: khajehahmadis@mums.ac.ir

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