

EP-058

접힌 비순섬 피판을 이용한 전층 비익 결손의 단일 단계 재건 : 증례 보고

(Folded nasolabial island flap for single-stage reconstruction of full-thickness alar defects: a case series)



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Purpose: Reconstruction of full-thickness nasal alar defects remains challenging because restoration of the mucosal lining, structural support, and external skin. Conventional techniques, including forehead flaps and nasolabial flaps, often require multi-stage procedures, resulting in increased patient burden, surgical risk, and medical cost. We report three cases of full-thickness alar defects reconstructed using a folded nasolabial island flap (FNIF) in a single stage.

Methods: Three patients with full-thickness nasal alar defects underwent reconstruction using the FNIF technique between October 2010 and October 2025. The defects were caused by basal cell carcinoma and squamous cell carcinoma. The FNIF involves elevation of a nasolabial island flap with a pedicle, followed by folding and transposition of the flap to reconstruct both the internal nasal lining and the external alar contour simultaneously. Postoperative outcomes were assessed based on physician evaluation and patient satisfaction, focusing on aesthetic outcomes and nasal airway function.

Results: The patients were aged 72, 49, and 90 years. All flaps survived completely without complications such as necrosis, infection, or venous congestion. Nasal airway patency was well maintained in all cases, and no collapse of the reconstructed nostril lining was observed. Both physician evaluation and patient satisfaction demonstrated excellent functional and aesthetic outcomes. Mild alar thickness or asymmetry occurred in some cases but was successfully corrected with secondary debulking procedures.

Conclusion: The folded nasolabial island flap is a reliable and straightforward technique for single-stage reconstruction of large full-thickness alar defects, providing stable structural support and satisfactory aesthetic outcomes without the need for cartilage grafting or multi-stage procedures.

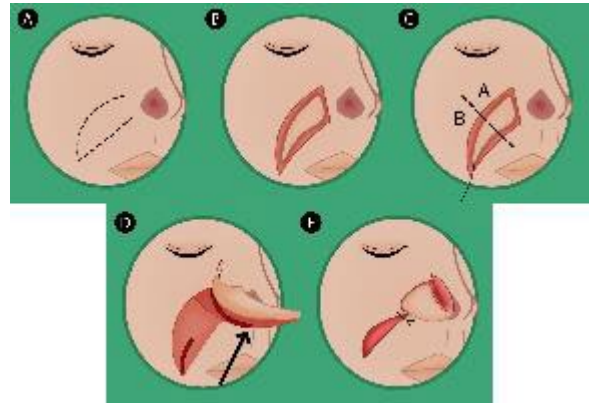


Figure 1. Schematic illustration of the folded nasolabial island flap technique. (A) Flap design. (B) Incision. (C) The A portion forms the external skin and the B portion forms the mucosal lining; folding of the flap provides strong structural support. (D) Pedicle dissection and flap elevation. (E) Flap inset.

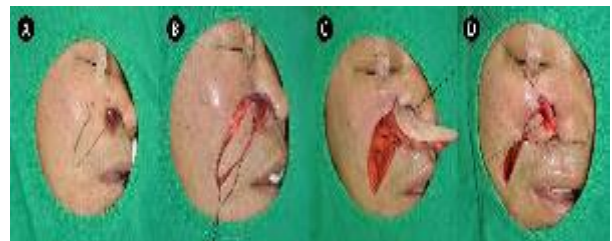


Figure 2. Operative procedure of the folded nasolabial island flap reconstruction. (A) Flap design. (B) Dissection and island flap elevation. (C) Flap transposition. (D) Flap inset and coverage of the alar defect.



Figure 3. Operative procedure in another case of folded nasolabial island flap reconstruction. (A) Flap design. (B) Dissection and island flap elevation. (C) Flap transposition. (D) Flap inset and coverage of the alar defect.

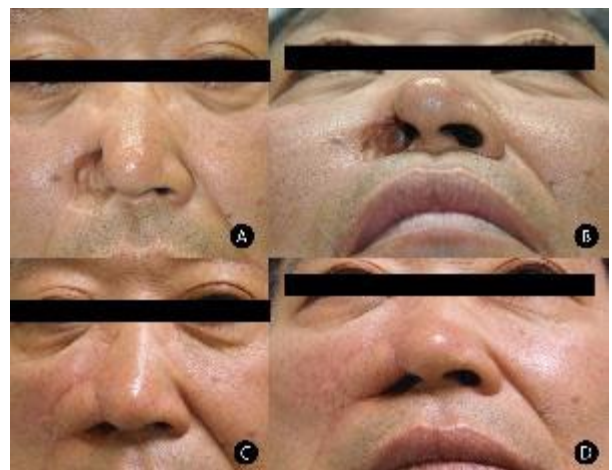


Figure 4. Clinical photographs of another case. (A, B) Preoperative images. (C, D) Postoperative images at 3 months.