

EP-053

안각동맥 천공지 기반
비 구순피판을 이용한
하안검 화상 결손의 재건

(Reconstruction of Lower Eyelid Burn
Defects Using an Angular Artery Perforator
Based Nasolabial Flap)



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Purpose: Lower eyelid reconstruction is a formidable challenge due to intricate anatomy and its role in ocular protection. Defects exceeding 25% of the eyelid length typically require flaps or skin grafts. Reconstruction aims to restore globe coverage, eyelid closure, and aesthetics while preserving vision. In burn injuries, the superficial orbicularis oculi and tarsal plate are highly vulnerable, leading to retraction and functional impairment. Therefore, appropriate techniques are essential to maintain ocular function and prevent vision loss in these complex cases.

Methods: We report the clinical case of a 51-year-old female patient who presented with a persistent 2.5 × 1.0 cm defect on her left lower eyelid. This defect, which involved the middle lamella and the arcus marginalis, occurred three months following a drill-assisted dacryocystorhinostomy. To restore both function and form, reconstruction was performed using a 2.5 × 1.2 cm pedicled nasolabial flap based on a single angular artery perforator. The flap was meticulously harvested and rotated approximately 90 degrees to fill the defect, while the donor site was closed using a full-thickness skin graft after 10 days after initial operation, to ensure minimal tension.

Results: The postoperative recovery was uneventful, with no signs of flap necrosis or eyelid retraction. During the follow-up period, the patient demonstrated excellent eyelid margin stability and a superior tissue match in terms of color and texture.

Conclusion: The angular artery perforator-based nasolabial flap provides dependable structural support and satisfactory cosmetic outcomes, representing a highly versatile and valuable option for the reconstruction of extensive and complex lower eyelid defects.

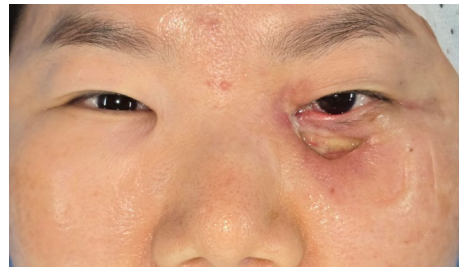


Fig. 1. Initial wound presentation at the first hospital visit. A third-degree burn caused full-thickness skin defect of left lower eyelid.



Fig. 2. (A) An angular artery perforator based nasolabial flap has been elevated. (B) The flap has been transposed 90 degrees anticlockwise, and medial canthal area was compressed with pillow. Donor site defect was covered with artificial dermis initially and full thickness skin graft was done after 10 days of first operation.

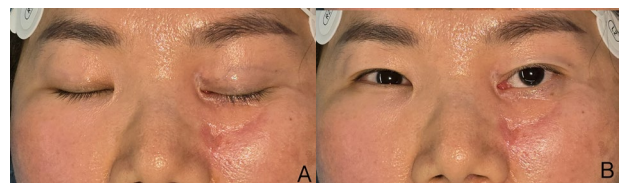


Fig. 3. One-year postoperative result. (A) Closed status of eyes: note the symmetry, skin texture, and the intact status of eyelid margins. (B) Open status of eyes: although there is mild scar contracture of lower eyelid tissues, the height of both lower eyelid is almost even. No excessive bulkiness of the nasolabial flap was observed.