

EP-072

안면부 비흑색종 피부암 재건 시
무세포 진피 기질(ADM)의 유용성:
피판 크기 최소화 및 미용적 결과
향상을 위한 전략

(Utility of Acellular Dermal Matrix (ADM) in Reconstruction of Facial Non-Melanocytic Skin Cancer: Strategies for Minimizing Flap Dimensions and Enhancing Aesthetic Outcomes)



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Purpose: Reconstructing facial defects after non-melanocytic skin cancer (NMSC) excision requires balancing aesthetics with function. This study evaluates the utility of Acellular Dermal Matrix (ADM) in reducing required flap dimensions and minimizing donor site morbidity.

Methods: Patients with NMSC facial defects underwent reconstruction using a hybrid approach. ADM was implanted into the wound bed to restore dermal thickness and provide a vascular scaffold. This allowed for the use of smaller local flaps or thin skin grafts that would otherwise be insufficient for deep defects. Outcomes were assessed based on flap size, tension-related distortion, and contour symmetry.

Results: The integration of ADM allowed for a significant reduction in the surface area and rotation arc of the required flaps. By providing essential vertical thickness, ADM prevented the "sunken" appearance often associated with traditional skin grafting. Key findings indicated minimal tension on adjacent structures, leading to a lower incidence of secondary deformities. Furthermore, the use of ADM facilitated the closure of defects in "tight" anatomical regions, such as the nasal and temporal areas, where skin laxity is insufficient for large flap mobilization.

Conclusion: ADM serves as a highly effective adjunct in facial NMSC reconstruction by acting as a biological volume filler and structural foundation. Its use successfully minimizes the necessity for extensive flap harvesting, reduces scar burden, and preserves the natural architecture of the face. For complex facial defects, the ADM-hybrid approach represents a tissue-conservative alternative that optimizes both functional and cosmetic surgical goals.



Fig. 1. Pre and postoperative photograph: A) Preoperative: Bowen's disease is noted on nasal dorsum, B) Postoperative: after ADM graft, integration with surrounding tissue is noted on 1 month post-op



Fig. 2. Intra and postoperative photograph : A) Intraoperative: Integration of ADM allowed for smaller flap elevation and inset, B) Postoperative: 1 year after surgery, both functional and cosmetic surgical goals were met.