



Οπισθοωτιαίο μόσχευμα πλήρους πάχους για ελλείμματα του ωτός: Χειρουργικό τέχνασμα

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Postauricular full-thickness skin graft for auricular defects: A surgical pearl

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ΠΕΡΙΛΗΨΗ

Η αποκατάσταση ελλειμμάτων του πτερυγίου του ωτός αποτελεί αισθητική και λειτουργική πρόκληση. Παρουσιάζουμε μία πρακτική προσέγγιση αποκατάστασης με οπισθοωτιαίο μόσχευμα πλήρους πάχους (FTSG) σε ασθενή 38 ετών με υποψία κερατοακανθώματος στο δεξιό πτερύγιο. Η εκτομή πραγματοποιήθηκε με τοπική αναισθησία και το προκύπτον έλλειμμα αποκαταστάθηκε με οπισθοωτιαίο FTSG. Η δότρια περιοχή συρράφθηκε κατά πρώτο σκοπό. Η μετεγχειρητική πορεία ήταν ομαλή με ικανοποιητικό αισθητικό αποτέλεσμα. Η τεχνική αυτή αποτελεί αξιόπιστη επιλογή όταν δεν ενδείκνυνται τοπικοί κρημνοί και προσφέρει άριστη χρωματική και υφική ομοιότητα, με τη δότρια περιοχή να αποκρύπτεται εύκολα.

ΛΕΞΕΙΣ-ΚΛΕΙΔΙΑ: Ωτική αποκατάσταση, δερματικό μόσχευμα, οπισθοωτιαία χώρα, μόσχευμα ολικού πάχους, χειρουργικό τέχνασμα

Σύγκρουση συμφερόντων: Δεν υπάρχει

ABSTRACT

Reconstruction of auricular defects poses both functional and aesthetic challenges. We present a practical approach for repairing a post-excisional defect using a postauricular full-thickness skin graft (FTSG). This technique leverages the excellent color and texture match between the donor and recipient sites. We describe the case of a 38-year-old male with a suspected keratoacanthoma of the right helical rim, excised under local anesthesia. The resulting defect was reconstructed using a postauricular FTSG. The donor site was closed primarily. The postoperative course was uneventful, and the aesthetic outcome was satisfactory. This technique remains a reliable option when local flaps are not suitable and allows for concealed donor site morbidity.

KEYWORDS: Auricular reconstruction, skin graft, postauricular donor site, full-thickness graft, surgical tip

INTRODUCTION

Reconstruction of auricular defects remains both a technical and aesthetic challenge for dermatologic surgeons, owing to the complex three-dimensional anatomy and visibility of the external ear¹. A variety of techniques have been described, including local flaps and skin grafts². Full-thickness skin grafts (FTSGs) offer excellent color and texture match, particularly when harvested from donor sites with similar skin characteristics³. The postauricular area is an ideal donor site due to its anatomical proximity, favorable concealment, and dermal properties⁴. This report highlights the use of a postauricular FTSG in auricular reconstruction following oncologic excision.

MATERIALS AND METHODS

A 38-year-old male presented to the dermatological surgery department of Andreas Syggros hospital with a non-healing ulcerative lesion on the helix of the right ear, persisting for over 12 months



FIGURE 1 | **A.** Preoperative view of a non-healing ulcerative lesion on the helix of the right ear. **B.** Post - excisional defect on the helical rim of the ear following surgical removal of a keratoacanthoma. **C.** Postauricular donor site from which the full-thickness skin graft was harvested.

(Figure 1A). Clinical assessment raised suspicion for keratoacanthoma. The patient underwent surgical excision under local anesthesia with 4-mm oncologic margins (Figure 1B). The resultant full-thickness defect measured 1.5 × 1.2 cm. Immediate reconstruction was performed using a full-thickness skin graft harvested from the postauricular region (Figure 1C). The donor site was closed primarily, and the graft was secured in place with 4/0 Vicryl Rapide absorbable interrupted sutures. A tie-over dressing was applied and maintained for 5 days.

RESULTS

Graft take was 100%, with no evidence of necrosis, hematoma, or infection. Sutures were removed on postoperative day 7. The postauricular donor site healed uneventfully. At 1-month follow-up, there was no local recurrence, hypertrophic scarring, or graft contraction. The patient reported an excellent cosmetic outcome, with optimal color and contour match (Figure 2A,B). No distortion of the auricular anatomy was noted. Histopathologic analysis confirmed the diagnosis of keratoacanthoma (Figure 3A,B). The lesion was fully excised, and the underlying cartilage was free of neoplasm.



FIGURE 2 | **A, B:** Postoperative appearance, demonstrating satisfactory healing and aesthetic outcome.

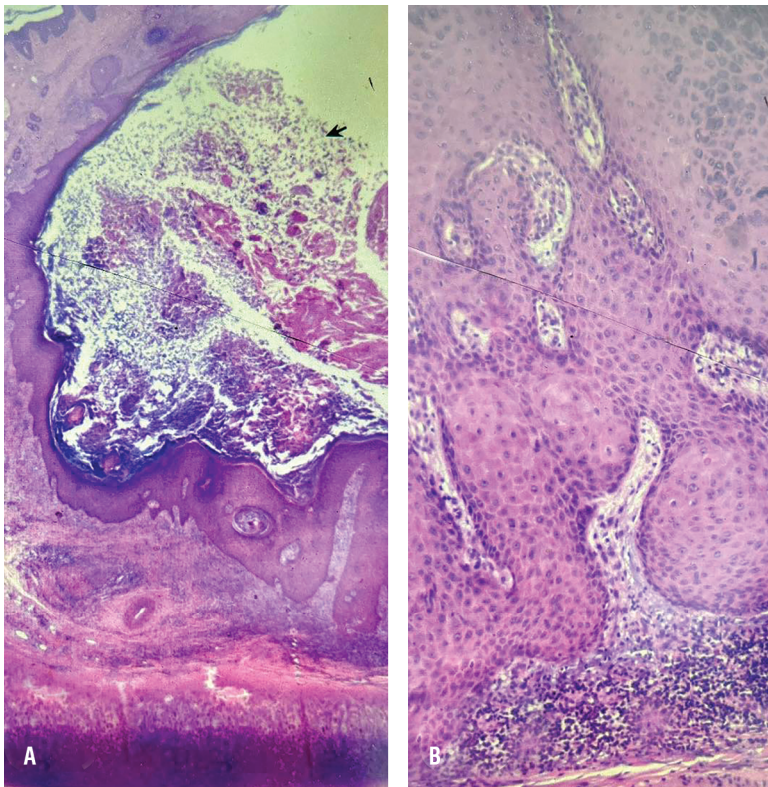


FIGURE 3 | A, B: Histopathology images section confirming the diagnosis of keratoacanthoma.

Figure 3A shows the lesion at low magnification:

- A crateriform exophytic lesion is observed, with a central accumulation of keratin.
- The lateral edges display epithelial hyperplasia with downward projections into the dermis.
- There is pseudoepitheliomatous hyperplasia of the epidermis i.e., hyperplasia of keratinocytes without dysplasia.
- The keratinocytes are well-differentiated, with preserved maturation toward the surface.
- A mild chronic inflammatory infiltrate, mostly lymphocytic, is present in the underlying dermis.
- The symmetrical architecture and well-defined borders are characteristic of keratoacanthoma.

Figure 3B shows the lesion at higher magnification:

- The squamous epithelium forms elongated projections into the dermis composed of mature, orderly keratinocytes.
- No significant cytologic atypia is present; nuclei are uniform, and mitotic activity is not increased.
- There is no evidence of deep dermal invasion, which would raise concern for squamous cell carcinoma.
- A dense lymphocytic inflammatory infiltrate is present in the dermis, particularly surrounding the epithelial projections.

DISCUSSION

Auricular reconstruction requires careful consideration of both aesthetic and functional outcomes. While local flaps provide robust vascularity, they may alter native auricular landmarks and are not always feasible for small-to-medium defects^{2,5}. FTSGs offer a reliable alternative when appropriate donor site selection is observed³. The postauricular region provides several advantages: matched skin thickness and texture,

anatomical proximity to the recipient site, and concealment of the donor scar^{4,6}. Complication rates are generally low, and cosmetic satisfaction is high³.

Key surgical tips include oversizing the graft slightly to compensate for contraction and ensuring meticulous hemostasis to support graft survival⁵. This case supports the utility of postauricular FTSG for small auricular defects, offering a simple, effective, and cosmetically favorable technique with high patient satisfaction.

ΒΙΒΛΙΟΓΡΑΦΙΑ

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Summary interpretation: These histologic features are consistent with keratoacanthoma: Central keratin plug, pseudoepitheliomatous hyperplasia with mature keratinocytes, minimal or no atypia, sharp demarcation from surrounding skin, and underlying dermal inflammation.