Pull-through inferiorly based island pedicle flap for a conchal bowl defect

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SURGICAL CHALLENGE

A 39-year-old woman underwent Mohs micrographic surgery for basal cell carcinoma in the conchal bowl (Fig 1), saving cartilage and perichondrium. Adequate reconstruction of this area requires preservation of shape, supportive function, and symmetry. Commonly used reconstructive options include second-intention healing, composite grafts, and skin flaps.

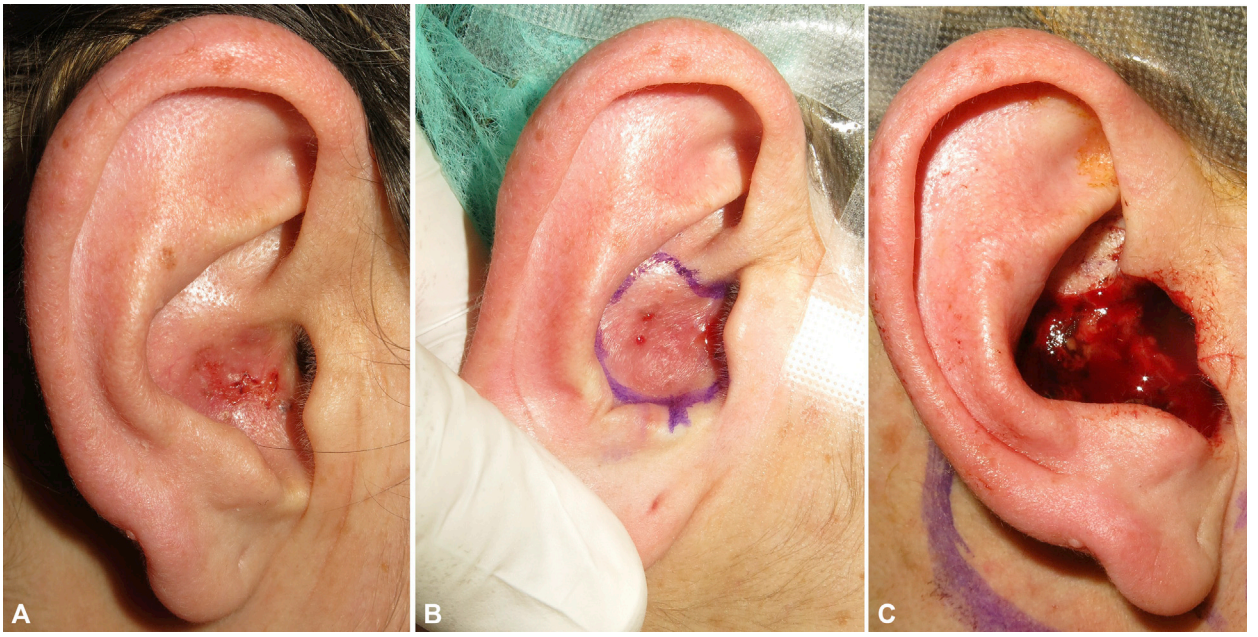

Fig 1. Basal cell carcinoma in the conchal bowl. Defect after Mohs micrographic surgery.

SOLUTION

A postauricular, inferiorly based, pedicle flap was elevated in the subcutaneous plane (Fig 2, *A*). A full-thickness incision was made at the inferior edge of the defect, and the flap was pulled through after the area to

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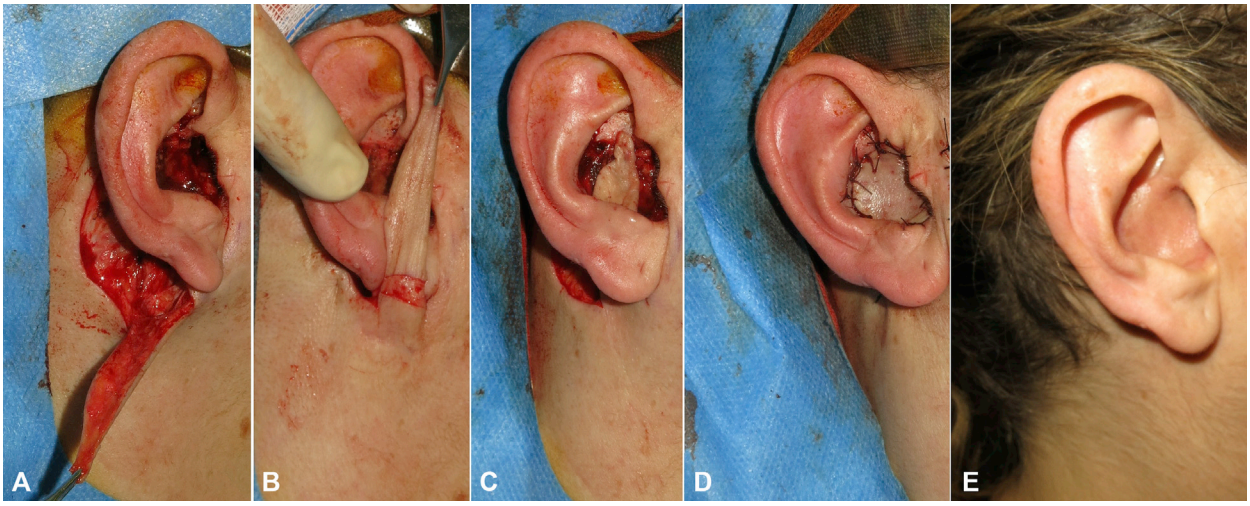

Fig 2. **A**, Elevation of a postauricular inferiorly based island pedicle flap in the subcutaneous plane. **B**, De-epithelialization of the area to be tunneled shown. **C**, Flap has been pulled through; a full-thickness incision has been made at the inferior edge of the defect. **D**, Early postoperative result, with the flap in place after closure. **E**, At the 2-month follow-up excellent preservation of anatomic landmarks is evident.

be tunneled had been de-epithelialized (Fig 2, *B-C*), and sutured in place (Fig 2, *D*), yielding excellent aesthetic and functional results (Fig 2, *E*).

Second-intention healing can be considered for the repair of smaller defects in the conchal bowl; however, a long healing period would be needed, with the consequent risk of infection, and in larger defects (as in this case), it might cause contraction. Full-thickness skin grafts represent another reconstructive option when the perichondrium is intact to ensure a vascular wound bed. Even so, survival of the graft might be compromised if a hematoma or seroma were to form under it, which would cause a second scar on the donor site. Two-stage skin flaps or flip-flop flaps that sacrifice the cartilage can be other choices for the repair.[1]

We report a single-stage flap that uses skin from a photoprotected area, matching that of the auricular concha in color and thickness. As such skin is well vascularized, it can be used to repair large defects in a 1-stage procedure.

REFERENCE

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