Earlobe Reconstruction with a Superiorly Based Bilobed Infra-auricular Flap

Dear Editor,

The earlobe is an anatomical structure with strong aesthetic and cultural significance. Earlobe deformity may be congenital or, more frequently, acquired due to trauma, burn, or surgery. Its surgical repair is challenging and complex, considering the difficulty in obtaining a durable and aesthetically acceptable outcome. Reconstruction may be immediate or delayed. Many techniques have already been described. We report a new technique for immediate earlobe reconstruction with satisfactory results.

A 46-year-old man was referred to our Dermatologic Surgery Department due to an ulcerated basal cell carcinoma in the left earlobe, confirmed by skin biopsy [Figure 1A]. Surgery was performed under local anesthesia with 2% lidocaine. The tumor and a margin of 5 mm were excised [Figure 1B], resulting in loss of the entire earlobe [Figure 1C]. A vertical, superiorly based, bilobed transposition flap, with the dimensions necessary to reach and cover the defect, was designed in the infra-auricular area, where the patient had redundant skin [Figure 1B]. The flap was raised and folded upon itself, vertically, with the inferior flap forming the anterior part of the reconstructed earlobe [Figure 1D and E]. The two flaps, overlapping, formed the new earlobe [Figure 1F]. No skin or cartilage graft was used. A simple suture using a 5-0 nonabsorbable, sterile monofilament was used to suture the flap into the primary defect. The secondary defect of the flap donor site was sutured after undermining [Figure 1G]. No postoperative complications were noted. The margins of the specimen were disease-free. One year after surgery, an excellent cosmetic outcome was observed [Figure 1H].

After the first description of the Gavello's method in the 1970s, several other reconstructive techniques for total earlobe repair have been described. Most of these techniques use a folded flap, two opposing flaps, or a flap and a skin graft, and usually require a two-stage procedure. In addition, some authors have suggested the incorporation of cartilage into earlobe to help maintain its shape. Nevertheless, a satisfactory aesthetical result in earlobe reconstruction has been difficult to obtain with the existing methods, particularly because of the three-dimensional anatomy of the earlobe and its consistency. In general, the residual deformity, the location of the scars, and the viability and similarity of the neighboring tissue are the main factors that determine the selection of the reconstructive method.[1-5]

The vertical, bilobed transposition and folded flap described herein is a simple single-step procedure, with excellent aesthetic results and minimal scar formation. It

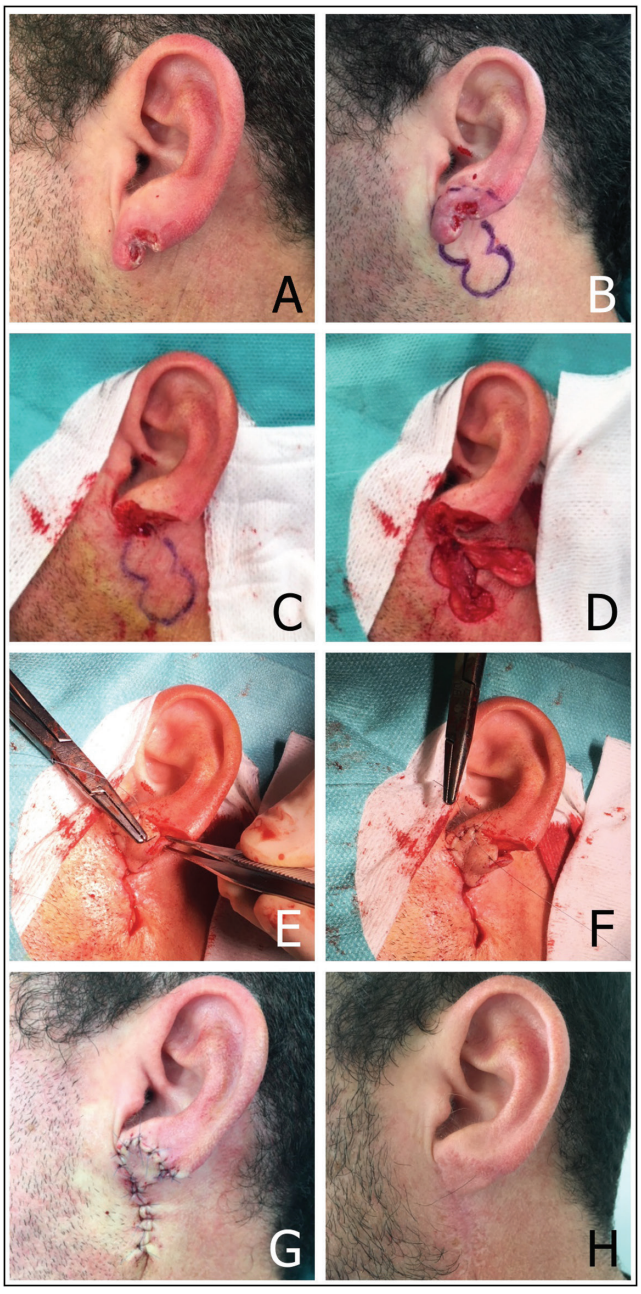

Figure 1: (A) Clinical picture of basal cell carcinoma in the left earlobe. (B) Design of the flap in the infra-auricular area. (C) Surgical excision with loss of the entire earlobe. (D–G) Reconstruction of the earlobe. (H) Clinical picture 1 year after surgery

may be considered as a valuable technique to reconstruct the full-thickness earlobe defect.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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