

Reconstruction of an Anterior Auricular Defect Through a Tunnelized Preauricular Transposition Flap

Dear Editor,

Reconstruction of the anterior surface of the auricle after oncologic surgery is often a challenge due to the scarce amount of skin available, its restricted vascularization, and the fact that it is an area of difficult manipulation requiring careful planning of the surgical technique.^[1-5] There are several options to correct auricular defects including local flaps, skin grafts, and even healing by secondary intention.^[1-5] We present a reconstruction of an anterior auricular defect through a tunnelized preauricular transposition flap that allows to preserve the original anatomy of the region.

A 62-year-old Caucasian man presented to our dermatology unit with a basal cell carcinoma in his right scapha [Figure 1]. We first designed a flap in the preauricular region for reconstruction [Figure 2] and then administered local anesthesia with lidocaine 2%. We excised the lesion sparing the cartilage. The primary defect measured about 1.3 cm in diameter [Figure 3]. Then, the



Figure 1: Basal cell carcinoma in scapha



Figure 2: Flap design in the preauricular region



Figure 3: Primary defect after tumor excision

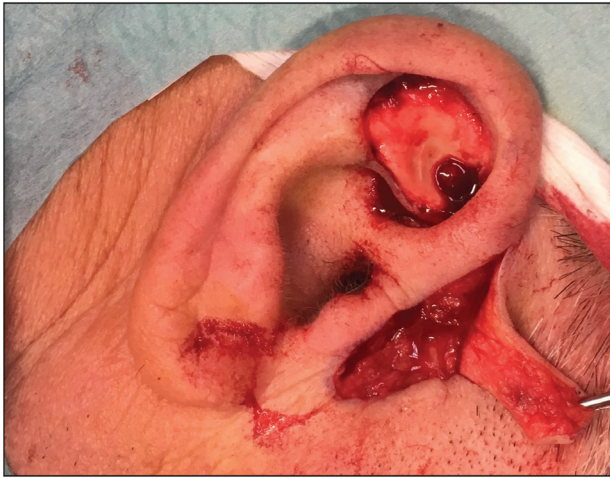


Figure 4: Dissection of the flap



Figure 5: Passage of the flap under the helix's root, adapting to the defect

flap was dissected and passed through an incision on the posterior aspect of the antihelix, under the helix's root, and adapted to the defect [Figures 4 and 5]. The segment of the flap that is passing under the tunnel was deepithelialized. Finally, we closed the flap and donor site [Figure 6]. The histological examination of the lesion confirmed basal cell carcinoma totally excised. There was good healing without complications in 3 months of follow up [Figure 7].

Surgery of the ear is complex, particularly when the disorder affects the anterior surface, which is more visible. By definition, transposition flaps must be elevated over an area of normal skin to reach their eventual destination in the primary defect. This reconstruction through a preauricular tunneled transposition flap allows to preserve the antihelix original anatomy and its natural curvature.^[2,4,5] It also provides skin with a similar color and texture to the defect, as an alternative to the graft and it can be a better option than second-intention closure that is a



Figure 6: Closure of the flap and donor site



Figure 7: Ear aspect after 3 months of the surgery

long process associated with increased risk of infection.^[1,4] The flap is well vascularized and has a good consistency. It is a surgical technique that provides a satisfactory cosmetic result in a single-stage procedure, preferable by the patient.

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.

Financial support and sponsorship

Nil.

Conflict of interest

There are no conflicts of interest.

Ana Marcos-Pinto, Ana Ortins-Pina, Maria Sanches, João Maia-Silva^{1,2}

University Clinic of Dermatology, Hospital of Santa Maria, Lisbon, Portugal,
¹Institute of Molecular Medicine, University of Lisbon Faculty of Medicine,
 Lisbon, Portugal, ²Center of Dermatology - Clinical Body CUF Discoveries
 Hospital, Lisbon, Portugal

Address for correspondence: Dr. Ana Marcos-Pinto,
 University Clinic of Dermatology,
 Hospital of Santa Maria, Lisbon, Portugal.
 E-mail: anaimarcos.pinto@gmail.com

REFERENCES

1. Sánchez-Sambucety P, Alonso-Alonso T, Rodríguez-Prieto MA. Tunnelized preauricular transposition flap for reconstruction of anterior auricular defects. *Actas Dermosifiliogr* 2008;99:161-2.
2. Di Mascio D, Castagnetti F. Tubed flap interpolation in reconstruction of helical and ear lobe defects. *Dermatol Surg* 2004;30:572-8.
3. Adler N, Ad-El D, Azaria R. Reconstruction of nonhelical auricular defects with local flaps. *Dermatol Surg* 2008;34:501-7.
4. Pereira N, Brinca A, Vieira R, Figueiredo A. Tunnelized preauricular transposition flap for reconstruction of auricular defect. *J Dermatolog Treat* 2014;25:441-3.
5. Braga AR, Pereira LC, Grave M, Resende JH, Lima DA, De Souza AP, *et al.* Tunnelised inferiorly based preauricular flap repair of antitragus and concha after basal cell carcinoma excision: Case report. *J Plast Reconstr Aesthet Surg* 2011;64:e73-5.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

Access this article online	
Quick Response Code: 	Website: www.jcasonline.com
	DOI: 10.4103/JCAS.JCAS_126_17

How to cite this article: Marcos-Pinto A, Ortins-Pina A, Sanches M, Maia-Silva J. Reconstruction of an anterior auricular defect through a tunnelized preauricular transposition flap. *J Cutan Aesthet Surg* 2018;11:42-4.