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(CASE REPORT)

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Basal cell carcinoma of the antihelix- reconstruction using a pre-auricular flap

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Abstract

We present the case of an 80-year-old female patient with a lesion on the right antihelix of the pinna that examined in the outpatient ENT Department of our hospital. A surgical excision of the lesion was performed, under local anesthesia. We used a superficial based pre- auricular flap to reconstruct the defect. The final postoperative result was satisfactory. The histological examination revealed a basal cell carcinoma.

Keywords: Preauricular flap; Basal cell carcinoma; Pinna; auricle; Reconstruction

1. Introduction

The auricle is a common area for skin carcinoma development. Basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) are the most common skin tumors occurring in a single anatomic area of the pinna[1, 2] . Comparing the incidence of BCC and SCC in the head and neck skin area with special reference to the pinna, the overall ratio of BCC to SCC remained four to one [3]. Several methods of reconstruction for pinna defects after tumor excision are proposed. Healing by secondary intension, skin grafts, the helix rim advancement technique, the trap door flap, the revolving door flap, the post- auricular island flap, the post- auricular transposition flap, the pre-auricular flap, are only some of the most usual reconstruction techniques that have special indications depending on the region of the auricular lesion[4-10]. We present the case of a woman with a BCC of the right antihelix that removed using a surgical excision. The reconstruction of the pinna was performed using a pre- auricular flap.

2. Case report

A 80-year-old female patient examined in the outpatient ENT Department of our hospital, because of a lesion on the antihelix of the right pinna, for about one year (Figure 1). According to the patient's medical history, she did not receive any medication. Through clinical examination, the otoscopy of the right ear did not reveal any pathological findings. No lymph nodes were found in the postauricular, parotid, periparotid and neck area.

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Figure 1 Lesion on the antihelix of the right pinna

After a preoperative evaluation, included hematological and cardiological tests, a surgical excision of the lesion was performed, under local anesthesia. A resection line was drawn around the lesion. A second resection line was drawn in the pre-auricular area, to be used for the reconstructive flap. Neutralized lidocaine with epinephrine used for local anesthesia. The lesion and the perichordrium removed through an excision. A central part of the cartilage was also removed (Figure 2).

Figure 2 The lesion and the perichordrium removed through an excision

Biopsy was fixed in formalin and sent to a referral laboratory for histological preparation and examination. Final defect involved the region of the antihelix. A superiorly based flap was outlined along the hairless area of the preauricular region, and dissected from the distal margin, above the superficial temporal vessels. A tunnel was created under the cartilage of the anterior part of the helix (helicalcrus). The flap was transposed through the tunnel, over the fossa triangularis (superior antihelix), between the crus superius and crus inferius of the antihelix and laid atop the defect. We used thin skin sutures to fix the flap. We used a pressure bandage to prevent the occurrence of a hematoma, that remained in place for 24 hours (Figure 3).

Ten days later, the stitches removed safely, as the patient followed the aftercare instructions (Figure 4).

Both surgical incisions heal, so the final postoperative result was satisfactory (Figure 5). The histological examination result revealed a basal cell carcinoma, as expected.

Figure 3 Postoperative result, 24 hours after the reconstruction

Figure 4 Postoperative result, after the stitches removal

Figure 5 Final postoperative result, after surgical incisions heal

3. Discussion

Basal cell carcinoma of the pinna is one of the commonest skin cancers of the head and neck area. Its localization can be anywhere on auricle, but usual areas of growth are the helix and antihelix. Many techniques proposed for the surgical excision of BCC of the pinna, using flaps to reconstruct the cartilage defects [3,11,12]. We used a pre- auricular flap so to reconstruct the antihelix defect of a 80-year-old woman BCC. We achieved complete coverage of the deficit remained after surgical excision of the lesion. The graft did not reject and the perfusion was effective.

4. Conclusion

The flap used for the reconstruction after a surgical incision of a skin cancer of the pinna, depends on the area that the lesion is located. We used a superiorly based pre- auricular flap and a cartilage tunnel to cover the antihelix defect. The postoperative results after removing the sutures were very satisfactory, both functionally and aesthetically. We believe that the use of pre- auricular flap is an appropriate method for skin lesions located in the antihelix of the pinna.

Compliance with ethical standards

Disclosure of conflict of interest

The authors declare no conflicts of interest regarding the publication of this paper.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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