Palpebral tissue grafting in the reconstruction of cutaneous tumors

Enxertia de tecido palpebral na reconstrução de tumores cutâneos

ABSTRACT

The reconstruction of defects resulting from the removal of facial tumors is always a challenge, given that the functional integrity of the treated area and the risk of retractions and unattractive scars must be carefully assessed. Grafts, often the best option in reconstruction, require that the donor and recipient areas present tissular similarities. The present study proposes the superior eyelid tissue as a good option in 12 patients with facial basal cell carcinomas and excess tissue in the superior eyelids.

Keywords: eyelids; neoplasms; transplantation.

RESUMO

A reconstrução de defeitos resultante da remoção de tumores na face é sempre um desafio, já que a integridade funcional da área tratada e o risco de retrações e cicatrizes inestéticas devem ser criteriosamente avaliados. O enxerto muitas vezes é a opção mais adequada à reconstrução, exigindo uma área doadora que apresente similaridades teciduais com a área receptora. Esse estudo propõe o tecido da pálpebra superior como boa opção em 12 pacientes portadores de câncer de tecido basocelular na face e sobra de tecido nas pálpebras superiores.

Palavras-chave: pálpebras; tumor; transplante.

INTRODUCTION

Cutaneous tumors frequently affect special areas of the face. The removal of such tumors, followed by the reconstruction of the defects generated by those lesions, should be carefully assessed. Direct closure is the initial option, however the use of flaps and grafts is necessary in many cases. Periorificial sites, such as the periorbital, perioral, periauricular areas and nasal dorsum, should be treated with greater care due to the risk of tissular retraction in the free margins and functional compromise resulting from inadequately planned reconstructions.

Limited tissular mobility and the presence of cancerized areas adjacent to cutaneous tumors circumstantially leads the reconstruction technique towards grafts with skin removed from areas that have a surplus of healthy tissue.

Adequate survival of the graft and the quality of its revascularization are fundamental when this type of reconstruction is chosen. The use of thin donor tissue, contemplating epidermis and dermis after discarding subcutaneous cellular tissue, facilitates the nutrition and increases the chances of surgical success.

The retroauricular area is one of the most frequent choices of donor area for the reconstruction of tumors removed from...
the face. The aging process, however, may result in additional regions with a surplus of skin; the upper eyelid could be a possible donor area for grafts. Palpebral tissue recognizably presents the smallest dermis and epidermis thickness of the face, which makes its use as a graft viable, with a guarantee of nutrition.

Superior blepharoplasty is a surgery easily executed by a qualified professional, and can be performed in an outpatient setting under local anesthesia, which offers safety to the patient. In this study we describe the use of upper eyelid skin grafts in the reconstruction of facial cutaneous tumors.

METHODS

The technique described was performed on 15 tumors on eight female and four male patients, aged 52–64, with clinically diagnosed primary basal cell carcinomas (BCCs) smaller than 3 cm, located on the tip of the nose, the lower eyelid, the nasal dorsum, and the upper eyelid. The removal of the tumors was performed in a circular shape, obeying variable margins of 3 to 4 mm. Each patient presented a surplus of skin in the upper eyelid. The exclusion criteria were: systemic arterial hypertension, diabetes mellitus and the use of anticoagulants or similar substances. The patients were originally from the Dermatologic Surgery Outpatient Clinic of the Santa Casa de Misericórdia de Recif, Pernambuco, Brasil and from the author’s private practice.

The upper eyelid’s surplus skin was chosen as the donor area for the reconstruction of the defects resulting from the removal of the carcinomas. In this way, a superior bilateral blepharoplasty was performed according to the following technique (Figure 1):

1. In all cases, 0.25 mg Clonazepan was administered 30 minutes before the procedure via sublingual route.

2. Surgical marking: the inferior line was positioned on the superior palpebral fold, and the pinching of the surplus skin offered the measure for the marking of the superior line (the intersection of the extremities of the two lines corresponded to the shape of an ellipse).

3. Anesthesia: 2.5ml of 2% lidocaine with vasoconstrictor for each eyelid.

4. The tissue was removed after excision with scalpel blade n.15, and divulsion with the support of curved Iris scissors.

5. After hemostasis, we proceeded to the approximation of the surgical margins with 6.0 nylon suture.

6. The palpebral tissue was attached to the receptor area by 5.0 nylon suture interrupted stitches.

7. Bandages of micropored adhesive plaster were applied to the donor and receiver areas.

As patients lived mainly in rural regions and had difficulties in traveling to the clinic. They were instructed to return after eight days, when their stitches were removed.

RESULTS AND DISCUSSION

The tumors removed from the 12 patients underwent histological evaluation, confirming the BCC diagnosis and verifying that the lateral and deep margins were free from lesions. Eleven patients described improvement in their visual capability due to the removal of the eyelids’ surplus skin, and 10 revealed a fear of suffering mutilation due to the removal of the tumor. All reported satisfaction with the aesthetic gain obtained with both the improvement of the eyelids and the reconstruction of the tumor. The patients rated the scars that resulted from the intervention from minor to imperceptible (Figures 2–5). All patients considered the procedure only a little painful, and preferred this method over a procedure carried out at a hospital, under sedation.

Although the priority was the cure of the tumor by its total surgical removal, the aesthetic gain offered to patients resulting from a less mutilating reconstruction is relevant. The possibility of reconstructing the defect caused by the removal of a tumor, with a delicate graft of easy adherence and survival, in turn allowing a cosmetic gain with its removal from the donor area, has encouraged the author to choose this method frequently. Patient satisfaction and the safety of this procedure highlight its benefits as an effective alternative that can be used by dermatologic surgeons.

Figure 1. A. Surgical marking of the surplus palpebral skin / B. Surgical removal / C. Eyelid synthesis
CONCLUSION

Upper eyelid tissue is a good option of graft donor area in the reconstruction of facial tumors.

REFERENCES