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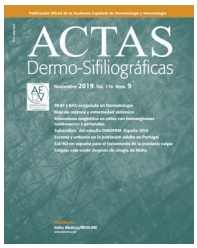

VIDEO OF SURGICAL PROCEDURES IN DERMATOLOGY

[Translated article] Should we Make a New Eyelid?: Reconstruction of Total Lower Eyelid Defect After Excision of Lentigo Maligna Melanoma☆

¿Hacemos un párpado nuevo? Reconstrucción de defecto total de párpado inferior tras escisión de léntigo maligno melanoma

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Introduction

The reconstruction of defects in the palpebral region resulting from oncological surgery can be complex. Sometimes, the techniques performed in this location present a higher degree of difficulty in dermatological surgery practice.[1] This difficulty increases in cases of total or subtotal defects of the lower eyelid.

After proper oncological excision of the eyelid, meticulous care is required in reconstruction to preserve eyelid function, avoid complications, and maintain periocular esthetics. It is necessary to understand the different surgical options available to reconstruct both the anterior and posterior lamellae to achieve the best outcomes in each case.[2,3]

We present the case of an 83-year-old woman with a 2 cm malignant lentigo melanoma (Breslow 0.4 mm) on the left lower eyelid, affecting the eyelid free margin. Complete excision of the lesion with margin control was performed, followed by an additional 1 cm of healthy perilesional skin excision, resulting in a large full-thickness defect, almost the entire lower eyelid, extending in the skin plane up to the orbital rim.

Technique description

The defect was then repaired: first, the posterior lamella was reconstructed by dissecting the conjunctival mucosa, creating a pocket in which a 3 cm long and 4 mm wide auricular cartilage graft was placed. This cartilage graft has a similar morphology to the conjunctiva and tarsus and is concave to fit the eyeball. The cartilage was fixed laterally to the periosteum of the external orbital rim and medially to the remaining small tarsus, all with 5/0 absorbable sutures.

The donor area was left with an incision hidden in the fold of the right antehelix, which was sutured with direct closure using 4/0 silk sutures.

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☆ The video was presented at the Surgery Video Contest during the 33rd GEDOC Meeting held in Seville (Spain) from November 4th through November 6th, 2021, where it was awarded the 2nd prize.

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The graft upper margin was sutured to the conjunctiva at the top and to the orbicularis muscle at the bottom. The external portion of the orbicularis muscle was elevated by a suspension stitch to the periosteum of the external orbital rim to prevent ectropion.

Once the cartilage was fixed and the posterior lamella reconstructed, the anterior lamella was reconstructed with a Fricke-type cheek transposition skin flap. The flap was slightly thinned to avoid excess thickness for the anatomical area under reconstruction. It was sutured with 5/0 absorbable suture to the conjunctiva at the top and 6/0 and 4/0 silk sutures in the cutaneous plane.

Six months after the procedure, the patient had satisfactory functional and esthetic results, with no signs of local recurrence.

Indications and contraindications of the technique

For the reconstruction of the posterior lamella, various local or distant flaps and grafts, both autologous and heterologous, are indicated[3]: buccal mucosa, palatal mucosa, chondromucous graft from the nasal septum, conchal cartilage grafts, fascia lata, etc.

Auricular cartilage grafts are indicated for defects ranging from 50% up to 100% of the lower eyelid as it is a tissue similar to tarsus (like to like), with no size limitations, minimal donor site morbidity, and good functional and esthetic outcomes.[3,4]

The Fricke cheek transposition flap to reconstruct the anterior lamella can cover the entire extent of the eyelid. Therefore, it is suitable for large defects like the one presented in this case.[5] Moreover, it has excellent vascularization, making necrosis very rare. As a disadvantage, the Fricke flap, when transposing cheek skin, is thicker than the eyelid, and it may be necessary to thin it for a better cosmetic result.

Complications

After complex eyelid surgeries, the following complications should primarily be avoided: ectropion, epiphora, and corneal exposure or damage due to abrasion.

In our case, the patient had a satisfactory postoperative course, performing daily wound care and having sutures removed after 7 days.

The only complication was mild trichiasis at the inner canthus, which was easily resolved by removing the eyelashes.

The auricular donor area did not present complications such as hematoma or sensory alterations.

Conclusions

We describe a case of complete full-thickness lower eyelid reconstruction (creating a ''new'' eyelid) using an auricular cartilage graft from the antehelix to repair the posterior lamella and a Fricke cheek transposition flap to repair the anterior lamella.

This technique allowed for reconstruction with tissues which were similar to the eyelid, restoring the tissues in the correct order and achieving good functional and cosmetic results.

Conflicts of interest

None declared.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.ad.2024.11.021.

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