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A delayed Tenzel flap

Francesca Falcinelli,¹ Giovanni Rubegni,² Ernesto De Piano¹

¹Dermatology Unit, Department of Medical, Surgical and Neurosciences, Siena University Hospital; ²Ophthalmology Unit, Department of Medicine, Surgery and Neurosciences, Siena University Hospital, Siena, Italy

Correspondence: Francesca Falcinelli, MD, Department of Dermatology, Division of Medical, Surgical and Neurosciences, University of Siena - Le Scotte Hospital, Viale Bracci 16, 53100 Siena, Italy

email: f.falcinelli@student.unisi.it

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Consent for publication: The patient gave his written consent to use his personal data for the publication of this case report and any accompanying images.

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The Case

A 71-year-old man presented with a lentigo maligna melanoma (Breslow 0.25 mm) of the left lower eyelid (Figure 1). Complete excision was achieved after 3 Slow Mohs stages, resulting in a quadrangular 1.8x1.2 cm full-thickness defect. After the first stage, upper and lateral margins resulted as histologically infiltrated. Therefore, an additional lateral strip was taken after 3 days, resulting in a tumor-free result. Radicalization was completed after another 8 days on the posterior lamella and rim with immediate reconstruction.

Our choice

In the first stage, after local anesthesia, we superficially incised skin with a double-blade scalpel in a quadrangular shape with a safe margin of 1 mm in the upper and 5 mm on the other three sides. Melanoma excision was completed along the outer scalpel sign, including anterior lamella (Figure 2 A). Although melanoma infiltration of the rim was likely, it was temporarily left in place to reduce wound extent. After formalin fixing (Figure 2 B) the pre-incised margin strips were resected from the specimen for *en face* section processing. The residual specimen was processed for vertical (*bread loaf*) routine sectioning. Margin and tumor sections were evaluated together in order to better assess local clearance (Figure 3 A-E).¹ At the last stage, posterior lamella and rim were excised, and a Tenzel flap was performed (Figure 2 C, D). The first incision was made at the lateral canthal angle and carried superiorly and laterally. After lateral canthotomy and inferior cantholysis, the skin-muscle flap was undermined and advanced medially to close the defect. The flap was fixed to the periosteum of the periorbital rim to prevent late ectropion. Finally, it was sutured (Figure 2 E).

The outcome

Sutures were removed after 7 days, and follow-up continued for four years. No recurrences were observed. Delayed reconstruction didn't compromise the final satisfying result (Figure 4 A, B).

Comment

Slow Mohs is an effective treatment for eyelid melanoma.² Besides providing staging information, *bread loaf* melanoma sectioning assists pathologists as positive control in the challenging task of interpretation of the *en-face* margin sections in sun-damaged skin.¹

Tenzel flap was originally described for defects involving 30-50% of the eyelid, although it can also be applied to reconstruct up to 80% of the eyelid with appropriate modifications.^{3,4} In some cases where Tenzel flap repair is predictable, it is possible to postpone rim and posterior lamella removal until the last stage to simplify wound management (*e.g.*, avoiding contact lenses to protect the cornea) without compromising Slow Mohs validity.⁵ Patient was simply instructed to apply petrolatum and keep the area covered with a bandage between the stages.

References

1. Etzkorn JR, Sobanko JF, Elenitsas R, et al. Low recurrence rates for in situ and invasive melanomas using Mohs micrographic surgery with melanoma antigen recognized by T cells 1 (MART-1) immunostaining: tissue processing methodology to optimize pathologic staging and margin assessment. *J Am Acad Dermatol* 2015;72:840-50.
2. Then SY, Malhotra R, Barlow R, et al. Early cure rates with narrow-margin slow-Mohs surgery for periocular malignant melanoma. *Dermatol Surg* 2009;35:17-23.
3. Tenzel RR, Stewart WB. Eyelid reconstruction by the semicircle flap technique. *Ophthalmology*. 1978;85:1164-9.
4. Levine MR, Buckman G. Semicircular flap revisited. *Arch Ophthalmol* 1986;104:915-7.
5. Haefliger IO, Tschopp M, Piffaretti JM, Pimentel AR. Delayed reconstruction after eyelid tumor excision. *Klin Monbl Augenheilkd* 2012;229:391-4.



Figure 1. Lentigo maligna melanoma of the left lower eyelid.



Figure 2. Wound after first stage (A) resulting in a quadrangular specimen (B). Wound before (C) and after third stage (D). Tenzel flap reconstruction (E).

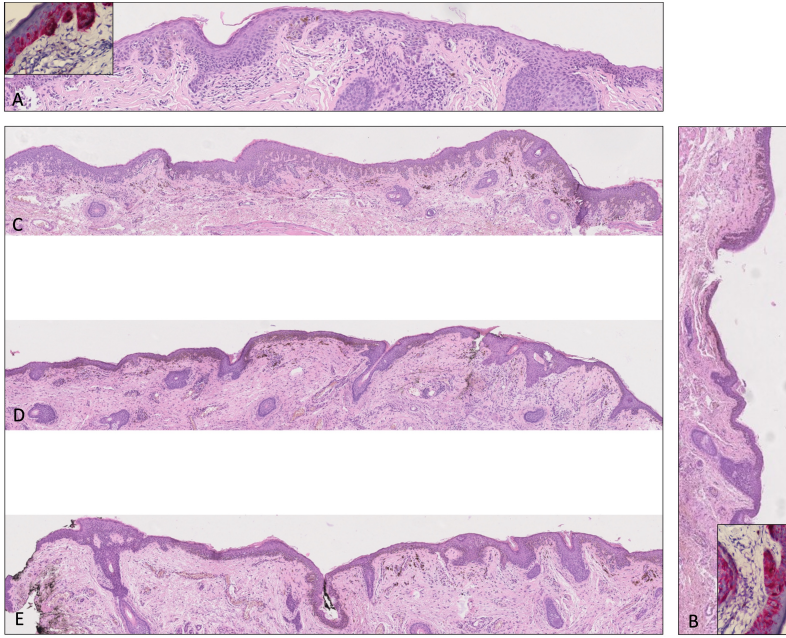


Figure 3. Histology showing remnants of melanoma in the upper (**A**) and lateral (**B**) *en face* margin sections (Melan-A immunostaining in insets). Incomplete excision was confirmed on three *breadloaf* sections (**C, D, E**). (*Haematoxylin and Eosin*, original magnification x5).

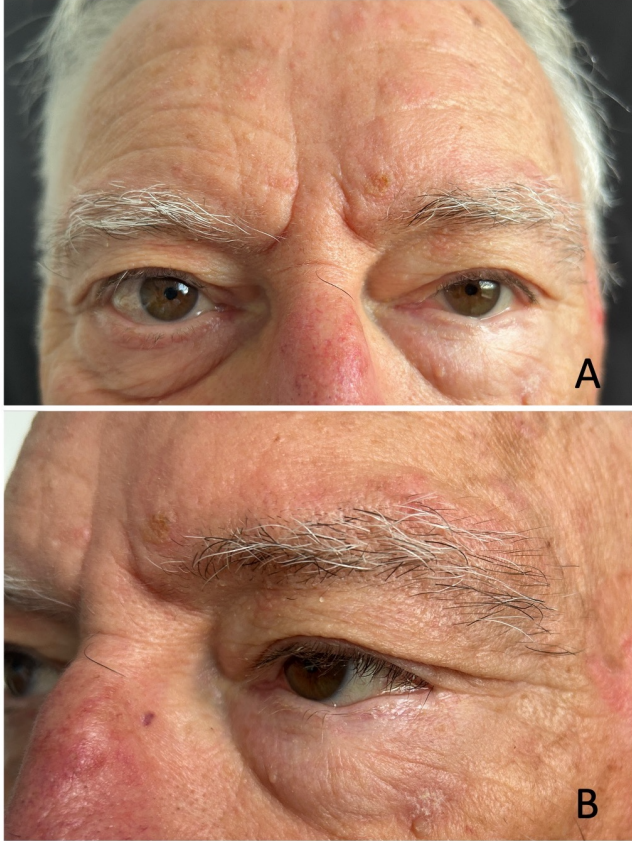


Figure 4. Results four years after surgery: frontal (**A**) and lateral (**B**) view.