

Anouar Titou , Mohammad Essiotti , Dounia Kamal

Department of Reconstructive and Maxillofacial Surgery, Hassan II University Hospital of Fez, Sidi Mohamed Ben Abdellah University, Faculty of Medicine, Pharmacy, and Dentistry, Fez, Morocco.

Introduction

Lower eyelid skin tumors, particularly squamous cell carcinoma (SCC) and basal cell carcinoma (BCC), present unique surgical challenges due to the functional and aesthetic importance of the eyelid. The Tenzel flap, introduced by Dr. John Tenzel, has emerged as an effective reconstructive technique to address these defects while preserving both function and appearance. At the Maxillofacial Department of Omar Idrissi Hospital, we employed the Tenzel flap in two cases to demonstrate its utility and success in lower eyelid reconstruction.

Materials and Methods:

Case 1: Squamous Cell Carcinoma of the Lower Eyelid

- Patient: 65-year-old female with a slowly growing lower eyelid mass with a biopsy-confirmed SCC.
- Procedure: Wide excision of the tumor resulted in a full-thickness defect. The Tenzel flap was designed to cover the defect while preserving the lateral canthal tendon.

Case 2: Basal Cell Carcinoma with Lower Eyelid Involvement

- Patient: 58-year-old female with a biopsy-confirmed BCC.
- Procedure: Complete excision of the BCC resulted in a significant lower eyelid defect. The Tenzel flap was chosen for reconstruction, ensuring functional restoration and aesthetic preservation.

Discussion

The Tenzel flap is a reliable method for reconstructing large lower eyelid defects, offering both functional preservation and cosmetic benefits. It is particularly suitable for cases where lateral canthal tissue is intact, allowing for a single-stage procedure that addresses all layers of the eyelid.

Key Considerations:

•Anatomy:

The flap maintains orbicularis oculi muscle function and preserves critical blood supply from the lacrimal and zygomaticofacial arteries.

•Advantages:

Compared to other reconstructive methods, the Tenzel flap is superior for its dynamic reconstruction of the anterior and posterior lamellae, avoiding the need for more extensive tissue rearrangements or grafting.

•Limitations:

Patient selection is crucial, as cases involving significant trauma or prior radiation may not be ideal for this technique.

Conclusion

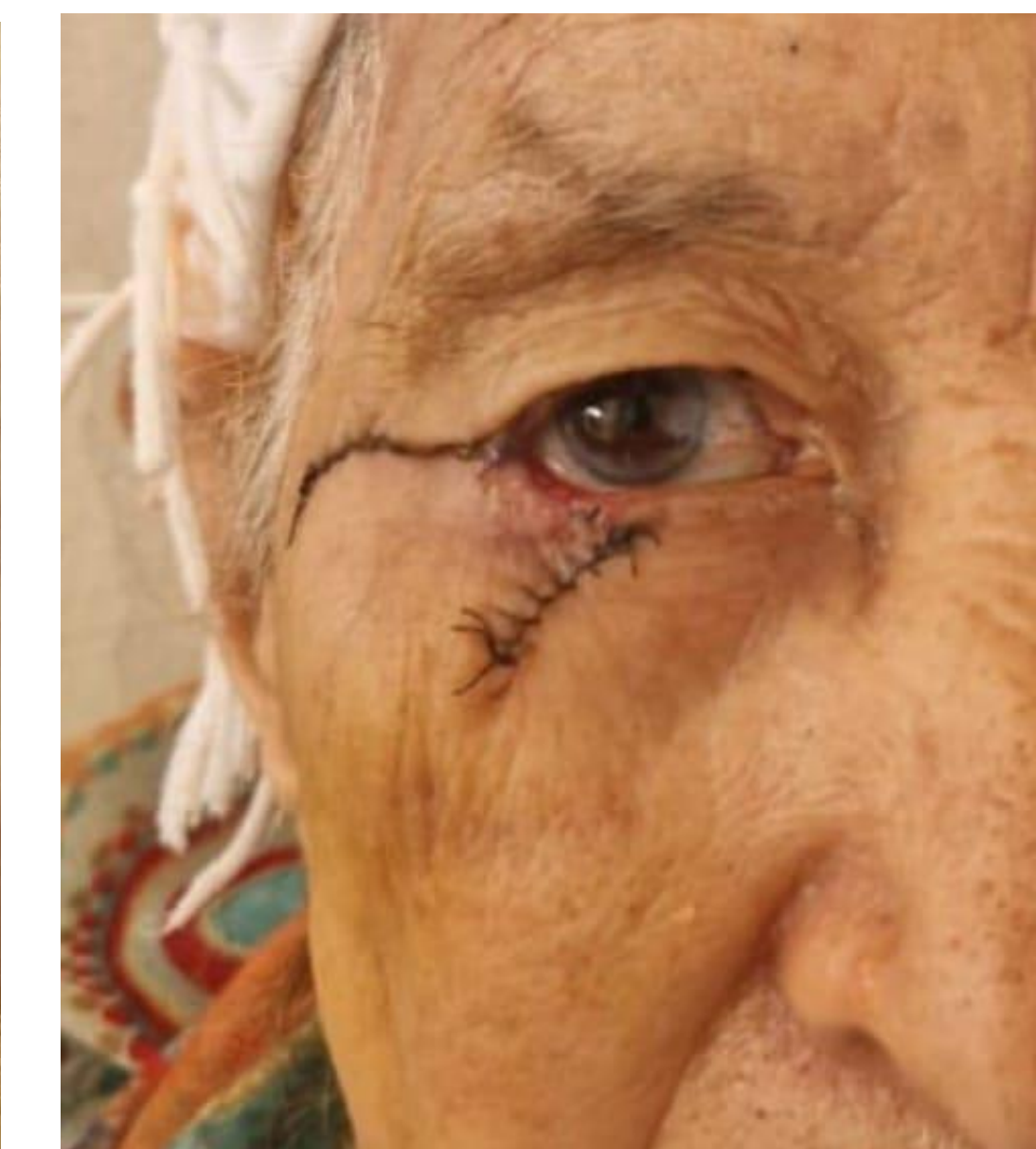
The Tenzel flap provides a versatile and reliable option for lower eyelid reconstruction following the excision of lower eyelid skin tumor. Both of our cases achieved successful functional and aesthetic outcomes, reinforcing the flap's role in maxillofacial and reconstructive surgery. Long-term follow-up is necessary to evaluate potential complications, but early results are highly encouraging.

Objectives

- Present two clinical cases involving lower eyelid skin tumors treated with the Tenzel flap.
- Highlight the effectiveness of the Tenzel flap for functional and cosmetic outcomes.
- Provide an overview of surgical techniques and postoperative results.

Results

- **Case 1:** The Tenzel flap successfully closed the lower eyelid defect, preserving eyelid function and achieving excellent cosmesis. Postoperative recovery was uneventful, with no complications, and the patient reported high satisfaction with both the aesthetic and functional outcomes.
- **Case 2:** The reconstruction with the Tenzel flap resulted in optimal eyelid closure, preserving orbicularis oculi muscle function. Minimal scarring and high patient satisfaction were observed postoperatively. Eyelid function was fully restored, and aesthetic outcomes were favorable.



Images showing the surgical excision of the tumor and the design and elevation of the Tenzel flap, highlighting the steps of the flap rotation.

References

- Hadri, O., et al. (2024). "Use of the Tenzel Flap in Basal Cell Carcinoma Reconstruction: A Case Report." *Journal of Reconstructive Surgery*, 56(4), 120-126.
- Nguyen, J., Fay, A. (2023). "Tenzel Semicircular Rotational Flap." *Plastic Surgery Key*, [Accessed online\(Plastic Surgery Key\)](#).
- Goto, A., et al. (2023). "Outcomes of Eyelid Reconstruction with the Tenzel Flap for Skin Cancer Resections." *Ophthalmic Plastic and Reconstructive Surgery*, 39(2), 89-94.
- Newall, C., et al. (2023). "Reconstruction of Eyelid Defects Using the Tenzel Flap: A Retrospective Study." *Annals of Maxillofacial Surgery*, 12(1), 58-64