

# International Journal of Health Science

ISSN 2764-0159

vol. 5, n. 33, 2025

## ... ARTICLE 15

Acceptance date: 28/10/2025

# CORRECTION OF CICATRICAL ECTROPION USING A COMBINATION OF TARSA STRIP AND TRIPIER FLAP

Leandro Balestrin

Joao Guilherme Novis de Souza Avellar



All content published in this journal is licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0).

## Introduction

Ectropion is defined as the eversion of the lower eyelid, causing it to turn away from the eyeball and resulting in both aesthetic and functional damage.

There are numerous causes of this condition, which may be associated with complications from cosmetic surgeries such as lower blepharoplasty or, as in the case of our patient, the presence of a tumor.

One of the most feared complications of removing skin lesions in the eyelid region is precisely scar ectropion.

Preventing this situation should always be part of surgical planning.

## Method

The electronic medical records of the Federal Hospital of State Employees were used, as well as face-to-face conversations and pre-, peri-, and post-operative follow-up of the patient.

## Objective

The objective of this case report is to illustrate a challenging surgery within the scope of oculoplastic surgery, thus helping colleagues in the field to find solutions when faced with similar situations.

## Case report



Figure 1: Preoperative Excision of the Tumor

A 61-year-old female patient with hypertension and diabetes was referred for a lesion on her lower left eyelid diagnosed as nodular basal cell carcinoma.

In December 2024, she underwent excision of the lesion. It was decided to perform reconstruction with a full-thickness skin graft from the supraclavicular region.

Approximately 3 weeks after surgery, the patient began to experience scar retraction, progressing to ectropion. Histopathological analysis confirmed the diagnosis of nodular basal cell carcinoma and showed clear margins.



Figure 2. Partial loss of the graft with exacerbated contraction of the wound edges

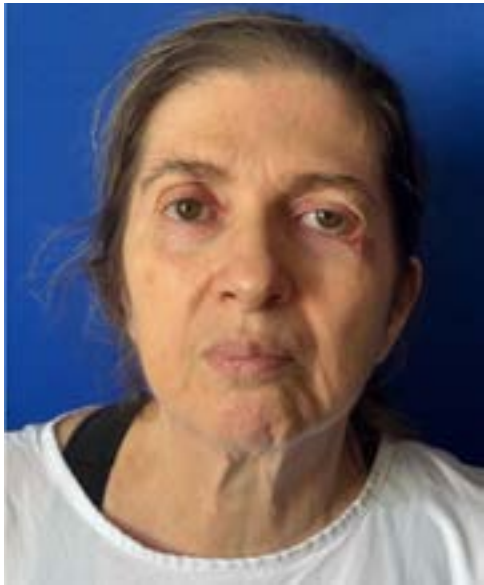


Figure 3. Scar ectropion from the first procedure.

Ninety days after the first surgery, the patient underwent a new procedure to correct the ectropion. The surgery was performed under local anesthesia with infiltration of a solution containing lidocaine, saline, and adrenaline 1:80,000. An incision was made in the upper margin of the previous scar, extending to the lateral third of the infraorbital rim. Canthotomy and cantholysis were then performed. The lower eyelid retractors were released until the tarsus was released without tension. A tarsal strip flap was performed and the tarsus was fixed to the inner part of the lateral orbital rim. The excess tarsus was excised. In association, a modified tripter flap was designed to cover the anterior lamella deficit. The musculo-cutaneous flap was detached and rotated to cover the defect ( ). Skin closure was performed with 5-0 nylon. In the postoperative period, the patient developed a small hematoma and underwent conservative treatment with good results.



Figure 4. Surgical marking of the tripter flap.



Figure 5. Finished Flap.



Figure 7: 2 months postoperative



Figure 6. 2 weeks postoperative of the second procedure

At the 2-month postoperative follow-up, there was significant functional improvement and slight scleral show.

## Discussion

Ectropion is a common eyelid position defect in which the eyelid is turned outward from the ocular surface. In cicatricial ectropion, the main cause is contracture of the scar on the skin and subcutaneous tissue, which shortens the anterior lamella and consequently evert the eyelid. Most patients with cicatricial ectropion will require excision of the scar and increase in the anterior lamella. After scar release, the residual degree of tarsal laxity should be assessed to determine the need for surgical correction.

The lateral tarsal strip is the most common surgical technique because horizontal tarsal laxity is the primary mechanism of ectropion. It consists of shortening and reattaching the tarsus to the internal periosteum of the orbital rim, 1 to 2 mm above the medial corner. Several techniques have also been described for treatment through elongation of the anterior lamella, releasing downward tension through transposition flaps, zetaplasties, or full-thickness skin grafts<sup>(6) (8)</sup>.

The tripiier flap is one of these techniques for reconstructing the anterior lamella. It is considered a myocutaneous and bipe-

diculated transposition flap of the upper eyelid. Its modification consists of maintaining only one randomized lateral pedicle, without the need for a second surgical procedure<sup>(3)</sup>. Because it has muscle fibers, it provides some volume as well as greater vascularization and also increases mechanical support. This flap has excellent color matching and good aesthetic and functional results<sup>(7,8)</sup>.

## Conclusion

The management of cicatricial ectropion is challenging, and each case must be treated individually. Surgical treatment of cicatricial ectropion remains the gold standard. It will often be necessary to combine techniques for better aesthetic and functional results.

## References

Guthrie AJ, Kadakia P, Rosenberg J. Eyelid Malposition Repair: A Review of the Literature and Current Techniques. *Semin Plast Surg.* 2019 May;33(2):92-102. doi: 10.1055/s-0039-1685473. Epub 2019 Apr 26. PMID: 31037045; PMCID: PMC6486383.

Steinsapir, K. D., & Steinsapir, S. (2021). *The Treatment of Post-blepharoplasty Lower Eyelid Retraction. Facial Plastic Surgery Clinics of North America*, 29(2), 291–300.

Machado WL, Gurfinkel PC, Gualberto GV, Sampaio FM, Melo ML, Treu CM. Modified Tripier flap in reconstruction of the lower eyelid. *An Bras Dermatol.* 2015 Jan-Feb;90(1):108-10. doi: 10.1590/abd1806-4841.20153181. PMID: 25672307; PMCID: PMC4323706.

Khan AZ, Ueland HO, Bohman E, Tønseth KA, Utheim TP. Ectropion. *Tidsskr Nor Laegeforen.* 2024 Jan 17;144(1). English, Norwegian. doi: 10.4045/tidsskr.23.0309. PMID: 38258716.

Worley B, Huang JW, Macdonald J. Approach to treatment of cicatricial ectropion: a systematic review and meta-analysis comparing surgical and minimally invasive options. *Arch Dermatol Res.* 2020 Apr;312(3):165-172. doi: 10.1007/s00403-019-01983-0. Epub 2019 Oct 4. PMID: 31584117.

Sidana S, Kadam S. Cicatricial Ectropion of Lower Eyelid: A Report of Two Cases. *J Cutan Aesthet Surg.* 2021 Apr-Jun;14(2):233-237. doi: 10.4103/JCAS.JCAS\_133\_19. PMID: 34566369; PMCID: PMC8423205.

Trindade F, Rosa J. Tripier myocutaneous flap as a versatile technique to reconstruct the lower eyelid. *J Eur Acad Dermatol Venerol.* 2008 Nov;22(10):1249-50. doi: 10.1111/j.1468-3083.2008.02608.x. Epub 2008 Apr 30. PMID: 18452525.

Kooistra LJ, Scott JF, Bordeaux JS. Cicatricial Ectropion Repair for Dermatologic Surgeons. *Dermatol Surg.* 2020 Mar;46(3):341-347. doi: 10.1097/DSS.0000000000002150. PMID: 31517657.