Dermatology Practical & Conceptual

Eyelid Lentigo Maligna Treated With Imiquimod 5%: Should We Fear of Ocular Side Effects?

Claudio Conforti[1], Carmen Dell'Aquila[2], Daniele Tognetto[2], Iris Zalaudek[1], Nicola Di Meo[1]

1 Dermatology Clinic, Maggiore Hospital of Trieste, Trieste, Italy
2 Eye Clinic, Department of Medicine, Surgery and Health Sciences, University of Trieste, Trieste, Italy

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Corresponding Author: Claudio Conforti, MD, Dermatology clinic, Maggiore Hospital of Trieste, Trieste, Italy. Phone +390403992056
E-mail: claudioconforti@yahoo.com

To the Editor,

Lentigo maligna (LM) represents the most common subtype of melanoma in the elderly, affecting predominantly the head and neck region in photodamaged patients. Surgery with 5 mm margins is the treatment of choice but patient comorbidities, impact of surgery intervention and the reduction of quality of life resulting from surgery can limit its application. In situations for which surgery would have a major impact on the functionality of the anatomic region or would results in cosmetically devasting outcome, radiotherapy or imiquimod (IMQ) represent valid alternatives. IMQ could cause significant skin reactions and little is currently known on its impact of the eye if applied in the periorbital region. Herein, we report the case of a 74-year-old woman, referred to our skin cancer department for a brownish macule located on left lower eyelid. Previous history revealed the excision with 5 mm margins of a LM 4-years before. A first recurrence appeared two years later and was surgically treated.

At current visit, a brownish macule of about 6-mm located on the lower eyelid was observed (Figure 1A). Dermoscopic evaluation showed a brown pseudo-network with intense pigmentation and obliterations of follicles (Figure 1B). A 4mm punch biopsy was performed, confirming the dermoscopic diagnosis of lentigo melanoma. The patient was discussed in our multidisciplinary tumor board because surgery would have an impact on the functionality of the eye and also because the patient refused further surgery. Based on the data suggesting a good response of LM to topical treatment with IMQ 5%, it was started five days per week. Considering the tumor closeness to conjunctiva and cornea and the risk of occasional applications of the drug in the eye during the treatment, a close dermatological and ophthalmological evaluations were performed every two weeks. After 4 weeks a partial response was observed (Figure 1, C and D) and after 6 weeks a complete response was achieved (Figure 1, E and F). At the ophthalmologic evaluation after 2 weeks of treatment, redness, burning and foreign body sensation of the conjunctivae was noted, without any decreased visual acuity. However, to limit discomfort, a combination of topical steroid and hyaluronic acid eyedrops were prescribed every day for ten days with a rapid improvement of the symptoms. Then, to prevent redness and burning sensation, hyaluronic acid eyedrops were prescribed for the entire

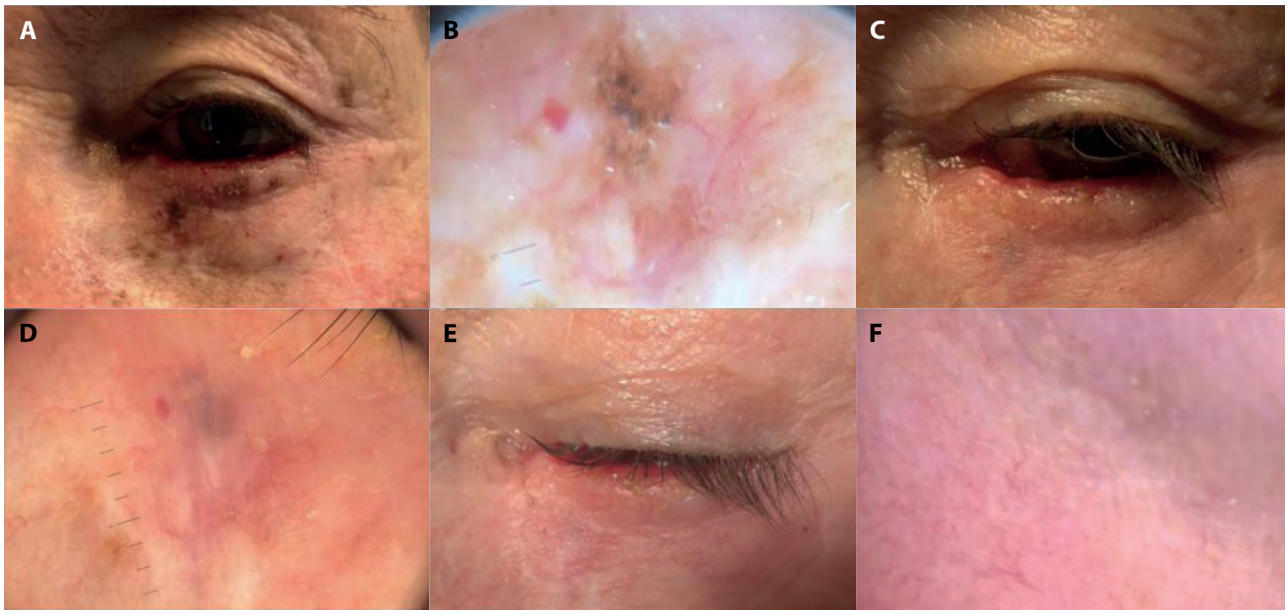

Figure 1. A brownish macule of about 6-mm located on the lower eyelid was observed. [Fig.1A] Dermoscopic evaluation showed a brown pseudo-network with intense pigmentation and obliterations of follicles. [Fig1B]. After 4 weeks of treatment with imiquimod 5%, a partial response was observed [Fig1C, Fig1D] and after 6 weeks a complete response was achieved. [Fig1E, Fig1F]

treatment period. At 6 months follow up visit, no clinical and dermoscopic signs of recurrence were observed and the conjunctiva did not show inflammation or impairment. The optimal response of LM to IMQ and its dermoscopic evaluation has been already proved (1,2); moreover, clinicians may be reluctant to prescribe IMQ on the eyelid because of risk of ocular adverse effects. However, O'Neill et al (3) described the case of a 52-year-old woman affected by LM, successfully treated with IMQ and, despite the patient giving a history of having applied treatment into the eye on occasion (in error) there were no adverse effects. Other reports show that the most common side effects during treatment of LM of the eyelids with IMQ are redness and burning, improved without permanent ocular damages after its discontinuation (4,5).

To prevent ocular redness and burning, the first advice to be given to patients is undoubtedly to use daily hyaluronic acid tears associated with good eyelid hygiene. In more severe scenarios, non-steroid tears should be prescribed to reduce discomfort and to increase therapeutic compliance. Therefore, considering the benefits of IMQ and the absence of permanent ocular side effects, the use of IMQ in the periocular area should not be avoided for fear of conjunctival inflammation which, if it occurs, can be treated, and prevented with topical therapy.

References

1. Lallas A, Moscarella E, Kittler H, et al. Real-world experience of off-label use of imiquimod 5% as an adjuvant therapy after surgery or as a monotherapy for lentigo maligna. *Br J Dermatol.* 2021;185(3):675-677. DOI: 10.1111/bjd.20407. PMID: 33894006.
2. Hamilko de Barros M, Conforti C, Giuffrida R, Seabra Resende FS, Di Meo N, Zalaudek I. Clinical usefulness of dermoscopy in the management of lentigo maligna melanoma treated with topical imiquimod: A case report. *Dermatol Ther.* 2019;32(5):e13048. DOI: 10.1111/dth.13048. PMID: 31365164.
3. O'Neill J, Ayers D, Kenealy J. Periocular lentigo maligna treated with imiquimod. *J Dermatolog Treat.* 2011;22(2):109-112. DOI: 10.3109/09546630903559798. PMID: 20666668.
4. Elia MD, Lally SE, Hanlon AM, et al. Periocular Melanoma In Situ Treated With Imiquimod. *Ophthalmic Plast Reconstr Surg.* 2016 Sep-Oct;32(5):371-373. DOI: 10.1097/IOP.0000000000000554. PMID: 26325381.
5. Murchison AP, Washington CV, Soloman AR, Bernardino CR. Ocular effects of imiquimod with treatment of eyelid melanoma in situ. *Dermatol Surg.* 2007;33:1136–1138. DOI: 10.1111/j.1524-4725.2007.33232.x. PMID: 17760609.