

Lentigo maligna on the face: a challenging conduct

Lentigo maligno na face: um desafio na conduta

Cíntia da Silva Gomes¹, Isabella Farias Glória de Paiva Barroso¹, Thaisa Bastos de Sousa Dutra¹, Daniel Lago Obadia¹, Tainá Scalfoni Fracaroli¹

ABSTRACT

Lentigo maligna is a melanoma in situ, of slow radial growth, which affects sun-exposed areas, especially in the elderly. When it affects the eyelid, due to the proximity to a noble organ, the conduct is controversial, but surgery is the method most commonly used, with margins varying according to the reference used. Conservative treatments are described, such as imiquimod 5% and radiotherapy. This report aims to demonstrate the lack of studies on the surgical margin, and to name nonsurgical treatment options for lentigo maligna of the face.

Keywords: Melanoma/pathology; Hutchinson's melanotic freckle/pathology; Facial neoplasms/diagnosis; Skin neoplasms/diagnosis; Aged; Case reports

RESUMO

O lentigo maligno é um melanoma in situ, de crescimento radial e lento, que acomete áreas fotoexpostas principalmente em idosos. Quando acomete a pálpebra, devido à proximidade a um órgão nobre, a conduta é controversa, porém a cirurgia é o método mais usado, com margens que variam de acordo com a referência utilizada. Terapias conservadoras são descritas, como o imiquimode 5% e a radioterapia. O presente relato tem como objetivo demonstrar a escassez de estudos sobre a margem cirúrgica e citar opções de tratamentos não cirúrgicos para o lentigo maligno da face.

Descritores: Melanoma/patologia; Sarda melanótica de Hutchinson/patologia; Neoplasias faciais; Neoplasias cutâneas/diagnóstico; Idoso; Relatos de casos

¹Service of Tropical Dermatology at Hospital Central do Exército, Rio de Janeiro, RJ, Brazil.

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Figures 1 and 2. Presence of brownish macula, with blackened central area located in the lower right eyelid, lateral cantal region and lateral third of upper right eyelid

INTRODUCTION

The term “in situ melanoma” was first used in 1949 by Lever, but it was only in 1992 that this classification was officially recognized as a diagnostic category for melanomas. In in situ melanoma, the neoplastic cells are confined to the epidermis and the adnexal epithelium, not exceeding the basal layer of these structures.⁽¹⁾

Among the in situ melanomas, there is lentigo maligna (LM), which affects areas of intense solar damage, preferably head and neck, with a peak incidence between 65 and 80 years of age.⁽¹⁾ It represents approximately 80% of all in situ melanomas, and may have a prolonged development of several decades before evolving to its invasive form, that would be called lentigo maligna melanoma (LMM).⁽²⁾

The treatment of choice is excisional surgery, but there are still controversies about the management due to its peculiar characteristics: patients with advanced age, involvement of the regions exposed with chronic solar damage, surgery with adequate aesthetic/functional results, difficulty in delimiting the margins, and common recurrence after treatment.⁽²⁾

As for LM with involvement of the eyelid, the conduct is even more difficult, since there is a relation with a noble organ and the concern with its functionality.

Case Report

Female patient, 70 years old, brown, retired, had a brownish macula on the lower eyelid of the right eye for five years, asymptomatic, associated to the blackened macula affecting the bulbar conjunctiva (Figures 1 to 3). Dermoscopy showed irregular pseudo-lattice, rhomboidal structures and areas of blotch (Figure 4). He was submitted to incisional biopsy. Histopathological examination revealed hyperplastic and pigmented epidermis, pigment effusion in the upper dermis, atypical melanocytes and hyperchromatic nuclei at various heights of the epidermis, invading the glandular epithelium (Figures 5 to 7). For completeness, an immunohistochemical exam was performed, with positive results for Melan-A, HMB-45 and S-100 markers, and the diagnosis of lentigo maligna was confirmed. The patient was referred to the services of Head and Neck Surgery, Ophthalmology and Oncology. We opted for wide-margin surgery, enlarged exenteration of the right orbit with sacrificed eye and reconstruction of the temporal muscle flap.



Figure 3. Presence of blackened macula in the bulbar conjunctiva of the right eye, not affecting palpebral conjunctiva



Figure 4. Dermoscopy could show irregular pseudo-lattice, rhomboid structures and central hypopigmented area where the biopsy was carried out

DISCUSSION

From the clinical point of view, lentigo maligna is a macula of irregular and badly defined borders, with varied pigmentation, asymmetric distribution and slow growth.⁽²⁾

Dermoscopy is a non-invasive complementary exam that helps select the best site for biopsy, differential diagnosis with other pigmented facial lesions, delineate the surgical margins, and

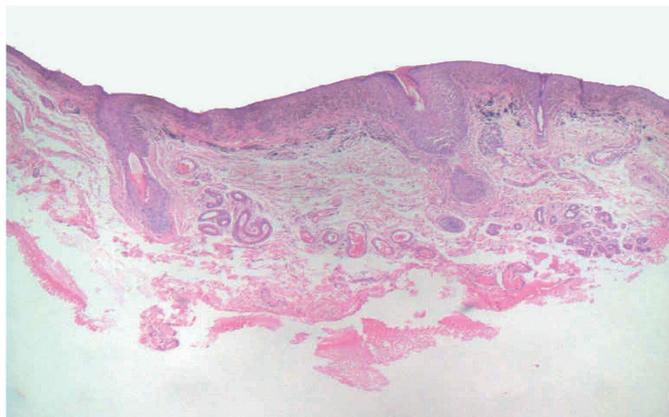


Figure 5. Histopathological examination stained with hematoxylin-eosin showed pigmented hyperplasia epidermis with pigment effusion in the upper dermis

follow-up and monitoring of the therapeutic response. The criteria indicative of LM for dermoscopy are the rhomboidal structures, irregular pseudo-lattice with asymmetric follicular openings, grayish granularity and blurs.⁽²⁾

Excisional biopsy is recommended in cases of suspected melanocytic lesion, but in the face these lesions are often large or located in areas adjacent to noble organs. In these cases, incisional biopsy can be performed. However, it may lead to an error in the diagnosis, since it represents only a small sample of the entire lesion.⁽²⁾

Regarding the type of treatment adopted for LM in the region of the eyelid in close relation with the eyeball there are no protocols or guidelines to be followed. In the American Academy of Dermatology, the recommended margin for in situ melanoma is 0.5-1cm, but it reports that in the LM this margin may be even wider, but not specifying the eyelid.⁽³⁾ The European Society of Medical Oncology adopts a more conservative margin of 0.5cm, and modifications may be made to maintain the ocular function in in situ melanoma of the eyelid.

According to Grupo Brasileiro de Melanoma, there are no comparative studies assessing the best therapeutic option and surgical margin. It points out that besides local excision with wide

margin, there may also be good results, despite the controversies, with Mohs Microscopy (CMM), a procedure performed in cycles where all the fragment removed is analyzed by freezing until all the tumor cells are removed, and with phase excision (Slow Mohs) in which the CMM is performed with characteristic freezing cuts and, in case of doubt during the assessment of some fragment of the margin, it is sent for paraffin cuts.⁽¹⁾

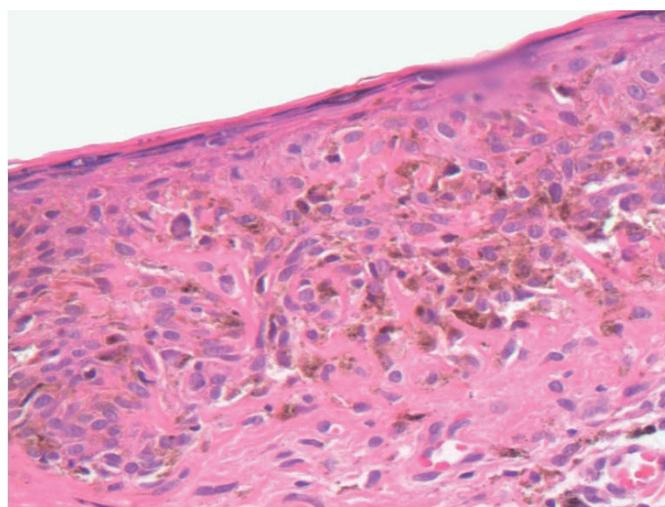
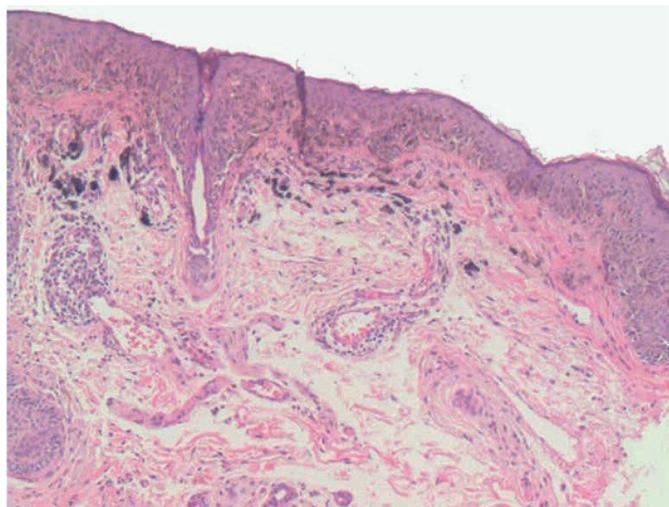
Because LM often affects elderly patients with associated comorbidities, extensive lesions requiring extensive surgeries, often resulting in patient rejection of surgery, other alternatives such as radiotherapy and imiquimod may be indicated. Although its main advantages are the good cosmetic results and the low morbidity, non-surgical treatments are associated with a higher recurrence rate.⁽²⁾

The use of cream imiquimod 5% with daily application or at five weekly days, for six weeks, can be used as exclusive treatment or as adjuvant therapy after surgical excision. It has been successfully used to treat LM affecting the eyelid, with excellent aesthetic results, although not all cases respond to treatment. There is also concern about the possibility of recurrence or progression to invasive disease during or after treatment with Imiquimod, which may limit its use.^(2,5)

Radiation therapy (RT) is also mentioned as a therapeutic choice, although there are no guidelines for treatment based on evidence. It is an option for definitive treatment or as an adjuvant therapy when we observe margins affected by the disease after surgical excision.⁽¹⁾ It presents little morbidity and good aesthetic results, since it is superior to surgery in the conservation of normal tissues in the region treated.⁽²⁾ This treatment modality has late adverse effects, such as hypopigmentation, telangiectasia, alopecia and loss of skin elasticity. Although RT is the most effective non-surgical technique for the treatment of LM⁽²⁾, some studies have observed progression to LMM and recurrence of LM after treatment.⁽⁶⁾

CONCLUSION

LM with extensive facial involvement is a challenge in the conduct due to the intimate relation with noble organs and the absence of standardization of the surgical margins. There are



Figures 6 and 7. At the highest magnification, an asymmetric and poorly circumscribed lesion is observed, composed of proliferation of atypical melanocytes and hyperchromatic nuclei at various heights in the epidermis

several therapeutic, surgical or non-surgical modalities that can be used in the treatment of facial LM. Therefore, it is necessary to carry out comparative studies that guide the best behavior in these cases, aiming at the effectiveness of the treatment and the satisfactory aesthetic/functional result.

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Autor correspondente:

Cíntia da Silva Gomes

Rua Francisco Manoel, 126 – Benfica, Rio de Janeiro, RJ, Brasil.

Telefone: +552133337739 / +5521996475201

E-mail: cintiabmp@yahoo.com.br