



## Lentigo maligna treated with topical imiquimod: dermatoscopy usefulness in clinical monitoring

Lentigo maligno tratado com imiquimode tópico: o valor da dermatoscopia no monitoramento clínico

Mariana Carvalho Costa<sup>1</sup>  
Carlos Barcaui<sup>3</sup>

Leonardo Spagnol Abraham<sup>2</sup>

**Resumo:** A dermatoscopia tem seu uso consagrado na avaliação diagnóstica de lesões melanocíticas. Recentemente, entretanto, tem se revelado também como importante ferramenta no acompanhamento da resposta terapêutica em diversas dermatoses. Relatamos o caso de uma paciente idosa, com diagnóstico de lentigo maligno de difícil manejo cirúrgico, para a qual optamos pelo uso do imiquimode tópico. O acompanhamento dermatoscópico dessa alternativa terapêutica se mostrou de grande utilidade. Palavras-chave: Dermatoscopia; Melanoma; Monitoramento; Terapêutica

**Abstract:** Dermoscopy has its usefulness well established in the diagnostic evaluation of melanocytic lesions. Recently, however, it has also shown to be an important tool in monitoring therapeutic response to various dermatoses. We report the case of an elderly patient diagnosed with lentigo maligna of difficult surgical management, which we have chosen to treat with topical imiquimod. The dermoscopic monitoring of this alternative therapy has shown to be of great usefulness.

Keywords: Dermoscopy; Melanoma; Monitoring; Therapeutics

### CASE REPORT

An 82-year-old white female patient from Rio de Janeiro was referred to us by an oncological surgeon, since it was a case of difficult surgical management. She presented a lesion in the right malar region that had started 2 years ago. She brought with her a histopathological report of incisional biopsy, revealing lentigo maligna. She had been subjected to eye exenteration three months earlier due to nodular melanoma arising from primary melanosis of the upper tarsal conjunctiva of the right eye. Moreover, she was hypertensive, diabetic and cardiac for a long time.

On clinical examination, the patient presented a flat, asymmetric and ill-defined lesion in the right malar region. Dermoscopy revealed asymmetric lesions with different shades of brown, streaks and blue-gray spots (Figure 1 A and B), asymmetric adne-

mal openings and rhomboidal structure.

Considering that she was an elderly patient with multiple comorbidities and history of recent surgery as well as the extent of the lesion, we chose to use imiquimod 5% cream, to be applied daily.

On the 10<sup>th</sup> day of treatment, significant reduction of the pigment was already observed (Fig. 1 C and D). On the 20<sup>th</sup> day (Fig. 2 A and B), dermoscopy revealed no pigment. Clinical and dermoscopic aspects still indicated resolution of the lesion (no pigment) two months after interrupting the treatment (Figure 2 C and D). The inflammatory reaction occurred in an intense and progressive manner, leading us to discontinue treatment on the 31<sup>st</sup> day (Figure 3). Since then, we established regular clinical follow-up, with dermoscopic examination and photographic documentation.

Received on 29.09.2010.

Approved by the Advisory Board and accepted for publication on 28.10.10.

\* Work conducted at Professor Rubem David Azulay Dermatology Institute, Santa Casa da Misericórdia do Rio de Janeiro (IDPRDA / SCMRJ) - Rio de Janeiro (RJ), Brazil.

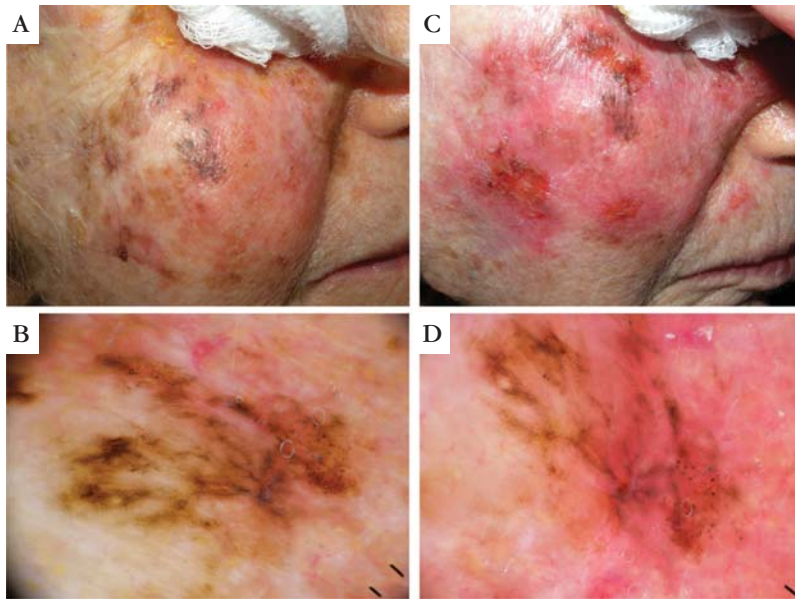
Conflito de interesse: Nenhum / *Conflict of interest: None*

Suporte financeiro: Nenhum / *Financial funding: None*

<sup>1</sup> Physician - Graduate student of Dermatology, Professor Rubem David Azulay Dermatology Institute, Santa Casa da Misericórdia do Rio de Janeiro (IDPRDA/SCMRJ) - Rio de Janeiro (RJ), Brazil.

<sup>2</sup> MSc student of Medicine and Anatomic Pathology, Federal University of Rio de Janeiro. Preceptor at the outpatient clinic of dermatology and alopecia, Professor Rubem David Azulay Dermatology Institute, Santa Casa da Misericórdia do Rio de Janeiro (IDPRDA/SCMRJ) - Rio de Janeiro (RJ), Brazil.

<sup>3</sup> PhD in Dermatology, University of Sao Paulo. Associate professor and coordinator of the outpatient clinic of dermatology, Professor Rubem David Azulay Dermatology Institute, Santa Casa da Misericórdia do Rio de Janeiro (IDPRDA/SCMRJ) - Rio de Janeiro (RJ), Brazil.



**FIGURE 1:** A and B. Clinical aspect and dermoscopy of the lesion before treatment. C and D. Clinical aspect and dermoscopy of the lesion on the 10th day of treatment

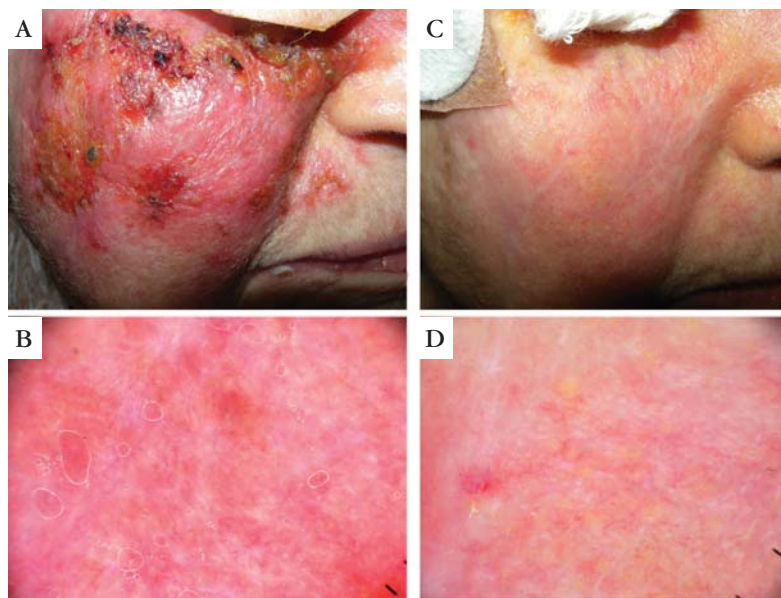
## COMMENTS

Lentigo maligna (LM), also called melanoma in situ, lentigo maligna type, is the most prevalent subtype of melanoma *in situ* (MIS), accounting for 79-83% of all MIS.<sup>1</sup> It is a melanocytic lesion of indolent behavior and radial and slow growth. It is considered a precursor of melanoma, lentigo maligna type,<sup>2</sup> the invasive form of the tumor. In general, it affects middle-aged and elderly individuals with fair skin types and chronically sun-damaged skin, especially on the face and neck.<sup>3</sup>

Dermoscopy in the diagnosis of LM has a sensitivity of 89% and specificity of 96%. It is characterized by asymmetric pigmented adnexal openings (ostia

invaded by atypical melanocytes), rhomboidal structures (proliferation of atypical melanocytes and pigment that extends around the follicle and coalesce) and blue-gray dots and globules (melanophages and their aggregates, respectively, in the upper dermis).<sup>4</sup> It is a very useful tool to differentiate LM from other clinically similar lesions such as solar lentigo and seborrheic keratosis. In addition, dermoscopy is also known to be useful in choosing the site for incisional biopsy and even in defining surgical margins.

Among the therapeutic options for LM, surgical excision with a margin of 5-10 mm remains the gold standard. However, since it affects more frequently



**FIGURE 2:** A e B. Clinical aspect and dermoscopy of the lesion on the 20th day of treatment; C and D. Clinical aspect and dermoscopy two months after stopping treatment

the head and neck, the lesions are often extensive and the patient may present multiple comorbidities, surgical treatment is not always easy or even well accepted by patients. In these particular cases, there are other alternative treatment options, such as imiquimod, a synthetic compound of the imidazoquinoline family, a topical immune response modifier.<sup>5</sup> By binding to *toll-like* receptors 7 and 8 of dendritic cells, imiquimod stimulates the production of cytokines (INF-alpha, IL12, TNF-alpha, IL2, INF-gamma, etc.), lymphocyte activation in the the regional lymph node with production of CD8 T lymphocytes and induction of apoptosis.<sup>6</sup> There are several studies on its use as an alternative therapy to LM, although they are all series or case reports with variable protocols and short follow-up.<sup>1,7</sup> In a recent review, the rate of disappearance of the lesion was 91%.<sup>7</sup> However, there is no consensus on the criteria for tumor disappearance. Some authors use clinical parameters, while others use incisional biopsies after treatment, which is not enough because the full extent of the lesion was not assessed. Although rare, there are reports of recurrence and even progression to an invasive form.<sup>8</sup> For these reasons, it is still considered an experimental therapy.

Dermoscopy, previously mentioned in the context of diagnosis and aid in surgical procedures, has also been suggested as a promising tool in monitoring therapeutic response.<sup>2,9</sup> Since it is an easy-to-use non-invasive clinical method, it can have widespread use. However, randomized controlled studies comparing dermoscopic findings and a histopathological evaluation of complete surgical removal are still required to confirm its real usefulness in monitoring the alternative therapy to LM.

As a future perspective, we believe that reflective confocal microscopy can be of great clinical usefulness (and not only experimental, as it has been so far<sup>10</sup>) as it allows for evaluation of the entire radial extent of the lesion as well as of the entire epidermis and part of the upper dermis. □

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MAILING ADDRESS / ENDEREÇO PARA CORRESPONDÊNCIA:

**Mariana Carvalho Costa**  
**SHLS 716, Centro Clínico Sul**  
**Torre II, sala 18, Asa Sul**  
**70.390-700, Brasília - DF, Brazil**  
**Tel./Fax: 61 3346-8940 / 61 3346-1614**

How to cite this article/Como citar este artigo: Costa MC, Abraham LS, Barcaui C. Lentigo maligna managed with topical imiquimod: dermoscopy usefulness in clinical monitoring. *An Bras Dermatol*. 2011;86(4):792-4.