

# Dermoscopy of pigmented mucosal lesions and considerations for a case of melanoma of the lip

*Dermatoscopia das lesões pigmentadas das mucosas e considerações sobre um caso de melanoma do lábio*

## ABSTRACT

The observation of mucous membranes should be part of a dermatological examination. It is known that early diagnosis is critical for the prognosis of patients with malignant melanocytic lesions. Nevertheless, integrating this step into the examination routine and performing a differential diagnosis between benign and malignant mucosal lesions with only clinical signs, are great challenges. Dermoscopy is still seldom-used for pigmented lesions of mucous membranes, however recent studies have shown its potential. In light of a case of melanoma of the lip, the authors provide tips and data from the literature that highlight the usefulness of the technique, and support the use of dermoscopic examination in the dermatologist's routine.

**Keywords:** dermoscopy; hutchinson's melanotic freckle; keratosis, actinic; face.

## RESUMO

*A observação das mucosas deve fazer parte do exame dermatológico. Sabemos que o diagnóstico precoce é fundamental para o prognóstico dos pacientes com lesões melanocíticas malignas; integrar essa conduta na rotina e realizar diagnóstico diferencial entre lesões benignas e malignas das mucosas apenas com sinais clínicos são, entretanto, grandes desafios. A dermatoscopia ainda é pouco utilizada para as lesões pigmentadas das mucosas, porém estudos recentes têm mostrado seu potencial. A propósito de um caso de melanoma labial ressaltamos a utilidade da técnica com dicas e dados da literatura que auxiliam o exame dermatoscópico na rotina do dermatologista.*

**Palavras-chave:** dermatoscopia; mucosa bucal; melanoma; lábio.

Early diagnosis is the cornerstone of managing malignant melanocytic lesions. The authors highlight that this is a crucial role of dermatologists, and that there is a daily challenge in achieving a complete dermatological examination of their patients. Mucous membranes are still neglected,<sup>1</sup> and many patients with mucosal melanoma report that they have had undiagnosed pigmented lesions for months or years.<sup>2</sup> The authors acknowledge the technical difficulty of carrying out the diagnosis of mucosal lesions, whose clinical signs do not always help in the differential diagnosis from benign pigmented lesions—which constitute the vast majority—and the rare malignant lesions.<sup>3</sup> The criteria of classical dermoscopy of skin lesions are not directly applied to mucosal lesions, however in

## Diagnostic imaging

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spite of the few studies in this area, this examination technique may prove very useful for the rational selection of lesions that deserve pathological study.

Linked to this paper's subject, the authors present the case of a 64-year-old Caucasian male patient, a former smoker, who reported the appearance and growth of a blackish spot on the lower lip, four years before. Clinical examination revealed that the lesion extended from the center of the lip up to the mucosa, measuring 4 x 1 cm (Figure 1).

Dermoscopic examination found that the pigmented lesion presented a multicomponent pattern (Figure 2). Excisional biopsy was performed, with histopathology demonstrating melanoma *in situ* with lentigo maligna pattern (Figure 3). The patient is well and has been monitored for two years after the widening of margins by 1 cm (Figure 4).

Primary melanomas of the lip are rare, representing 0.05–0.31% of all melanomas and 0.3–2.2% of head and neck melanomas. They predominate in male patients (2:1), and usually occur after the age of 50, with the extensive superficial variant being the most common type. These lesions have aggressive behavior, with reported recurrence of 40%, metastases in 36% and deaths in 60% of patients.<sup>4</sup>

In 2011, a retrospective multicenter study coordinated by the International Dermoscopy Society<sup>3</sup> that included 140 pigmented lesions of mucous membranes, has proposed two simple and very useful models for differentiating benign from malignant lesions.

In the first model, the presence of blue, gray, or white color occurred in 100% of the malignant lesions in the study; this fact was considered the main feature in differentiating malignant from benign lesions in the study (100% sensitivity and 64% specificity for melanomas). A pattern of an “absence of structures”—which is defined as the absence of other identifiable patterns (such as dotted, globular, circles, or linear) regardless of color—was also statistically significant. This pattern was present in 100% of melanomas, but also in half of the benign lesions (53.2%). However, in the latter they were usually brown in color, and always featured an absence of blue, gray, and white colors. When added to the color model, the pattern “absence of structures” increases the specificity for melanoma from 64% to 82%, even if present only in some areas of the lesion. Due to its high specificity, it is worth noting the importance of the “multicomponent pattern” (presence of three or more patterns in the same lesion) in other case series reported in the literature.<sup>5</sup>

In the present case, it is important to note that the dermoscopy shows a wealth of signals that are not seen with the naked eye. By applying the new diagnostic models, the authors corroborate their validity for they have found not one, but three colors deemed suspect: blue, gray, and white—in addition to brown—as well as the pattern “absence of structures”. The authors have also considered that the other three patterns—parallel lines in “fingerprint” pattern, circular pattern and atypical globular pattern—characterize the lesion as having a multicomponent pattern, further reinforcing the suspicion of malignant melanocytic lesion.



FIGURES 1 A AND B: Macule with areas of grayish and dark chestnut color in the lower lip, extending to the mucosa

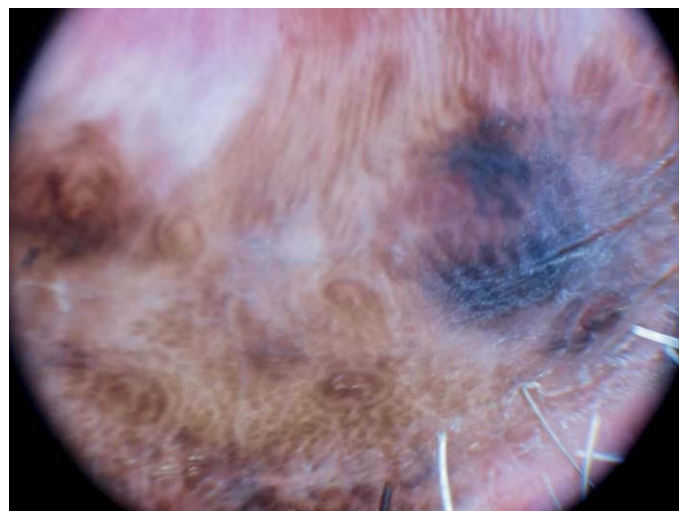
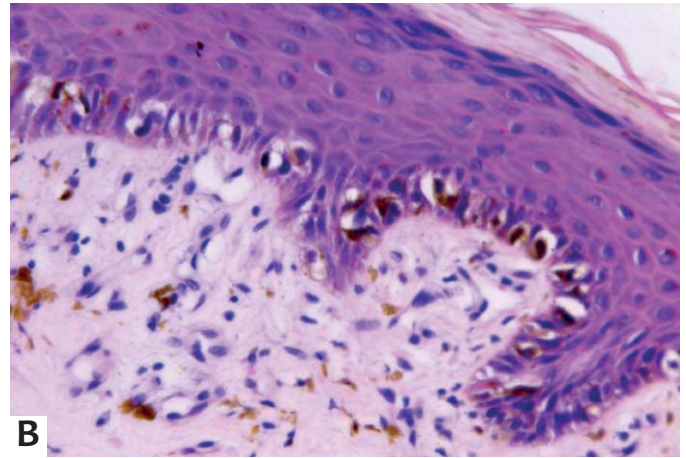
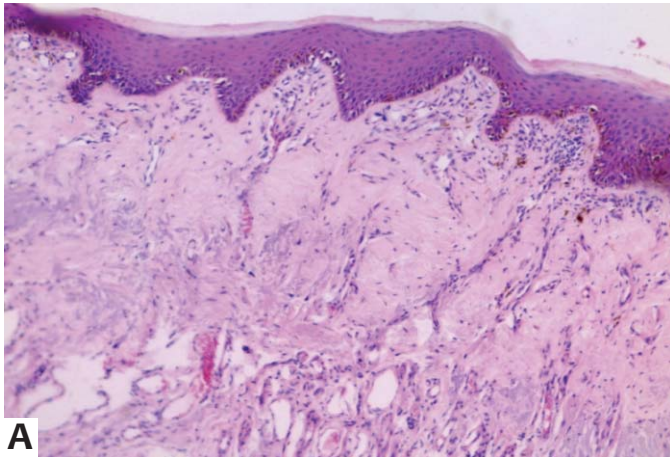


FIGURE 2: Dermoscopy image with multicomponent pattern and multiple colors (blue, gray, white, and brown) standard. A white color “absence of structures” pattern can be seen at 10:00 am, while a bluish-gray color “absence of structures” pattern can be seen at 3:00 pm. In addition, the parallel lines in “fingerprint” pattern (1:00 pm), and the circular pattern and irregular globules (6:00 am – 8:00 am), can be observed



FIGURES 3A AND B: Lentiginous melanocytic proliferation with severe atypia. Melanoma in situ with lentigo maligna pattern (HE 100-400x)



FIGURE 4: Three-month post-operative of the widening of margins, maintaining aesthetic and functional aspects

It is necessary to consider that despite the great variation in patterns associated with benign mucosal lesions, the identification of the suspected color model with the presence of the pattern “absence of structures” seems to be very useful for a more rational selection of lesions to be excised for anatomical pathological examination.

Last but not least, the authors provide some important guidelines for good dermoscopic examination of the mucous membranes: proper positioning of the patient for examination; using PVC film to protect the dermatoscope from direct contact with the lesion; obtaining digital images of the lesion for analysis on the computer rather than performing analysis on the patient. In the authors' experience, these tips make the procedure easier, safer, and also more acceptable to the patient. ●

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