Diagnostic Imaging

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Melanoma on nevus *spilus*

Melanoma sobre nevo spilus

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ABSTRACT

The nevus *spilus* (NS), also known as speckled lentiginous nevus or nevus on nevus, is represented by a brownish macule on which small macules of darker shades appear. It is more common on the trunk and lower limbs. The general population's prevalence is 0.2% to 2.3%, and they have a benign character. The exact risk for malignant transformation is still unknown; thus, it demands a routine clinical-dermoscopic follow-up. We present a case of malignant melanoma on acquired nevus *spilus,* in which early an excision was performed, with no recurrence, highlighting the importance of follow-up of these patients.
Keywords: Melanoma; Nevi and melanomas; Nevus

RESUMO

O nevo spilus (NS), também chamado de nevo lentiginoso mosqueado ou nevus sobre nevus, é representado por mancha acastanhada sobre a qual surgem pequenas máculas de tons mais escuros. É mais comum no tronco e em membros inferiores. A prevalência na população geral é de 0,2% a 2,3% e tem caráter benigno. O risco exato para transformação maligna ainda é desconhecido, por isso demanda seguimento clínico-dermatoscópico rotineiro. Apresentamos um caso de melanoma maligno sobre nevo spilus adquirido, no qual foi realizada exérese precoce, sem recidiva, ressaltando a importância do acompanhamento desses pacientes.
Palavras-chave: *Melanoma; Nevo; Nevos e melanomas*

INTRODUCTION

Nevus *spilus* (NS), also known as nevus on nevus or speckled lentiginous nevus, presents small macules and/or hyperchromic papules on a larger and slightly brownish macula. It is usually located on the trunk and lower limbs. A single or multiple lesion clinically characterizes NS, and this lesion may acquire a zosteriform aspect on the dermatome. It can be congenital or acquired, being more common in childhood, but there are reports of its appearance at any age, and there is no predisposition for a skin type.[1] Its prevalence in the general population is 0.2% to 2.3%, and it is benign. Although malignant transformation is rare, NS must be monitored. This article aims to report an 84-year-old patient with nevus spilus with malignant transformation to melanoma.

CASE REPORT

An 84-year-old man sought help at the Dermatology Clinic of the School of Medicine of Botucatu to treat four pancellular carcinomas on the face. In 2005, we observed an irregular stain measuring 15 x 10 cm in length, hyperpigmented, with a *café-au-latte* color in the trunk's lateral region during the consultation. Upon the stain, there were multiple dark brown, lenticular macules.

In the stain's center, we noticed a dark brown, asymmetrical macula, with irregular edges, measuring 15 mm in the largest diameter (Figures 1 and 2). Dermoscopy revealed an irregular pigmentation area, containing an atypical pigment network with thickening and abrupt termination (Figure 3). Physical examination presented the absence of palpable lymph nodes.

Because this was a lesion suspected of malignancy, surgical excision was performed. The anatomopathological examination revealed extensive superficial malignant melanoma with evident lymphocytic infiltrate, Clark level III, and Breslow index 0.4 mm, associated with junctional nevus (Figures 4 and 5).

The patient underwent clinical follow-up with a physical examination, dermoscopy, and tests for tumor staging, which resulted in no changes. There was no change in the remaining nevus and/or evidence of local recurrence or distant metastasis during seven years of follow-up. The patient was lost to follow-up in the Dermatology Clinic from 2012. In 2016, he died at 95 years of age from pneumonia, decompensated heart failure, and acute chronic kidney failure.

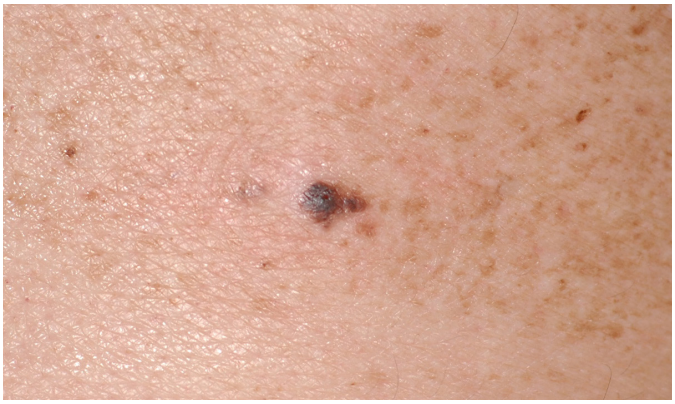

Figure 1: Irregular light brown hyperpigmented patch, with multiple small lenticular macules, also called nevus on nevus, and with a blackened macula in the center, in the trunk's lateral region

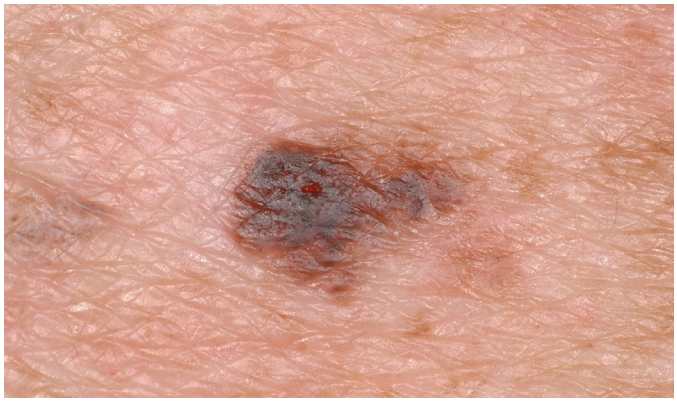

Figure 2: Detail of the macula located centrally with various shades, from brown to black

DISCUSSION

The nevus *spilus* (NS) is a hyperpigmented stain, resulting from lentiginous melanocytic hyperplasia. Smaller macules from 1 mm to 3 mm, with darker shades, compose the lesion, resulting in a mottled appearance. There is no preference for gender or race. It can be congenital or acquired. However, its etiology remains unknown.[5] The first case of melanoma in NS was reported in 1957.[2] Since then, less than 40 cases have been published.[4] In Brazil, two case reports of malignant melanoma were found on nevus *spilus*.[3,4] Some studies believe

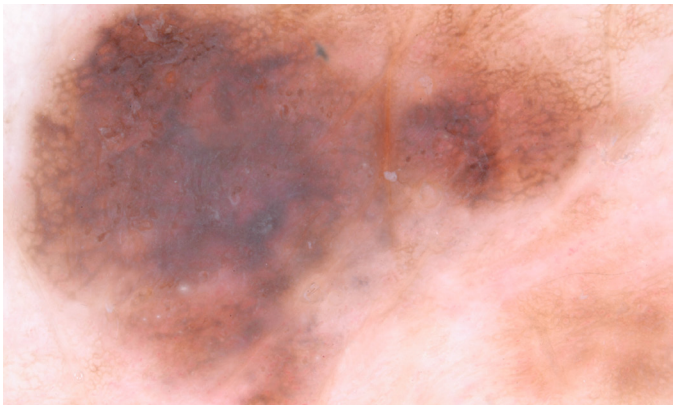

Figure 3: Dermoscopy: irregular pigmentation area, containing atypical pigment network with thickening and abrupt termination. Presence of blackish and milky-red areas without structure, associated with a whitish-blue veil. Some hypopigmentation areas irregularly distributed in the lesion

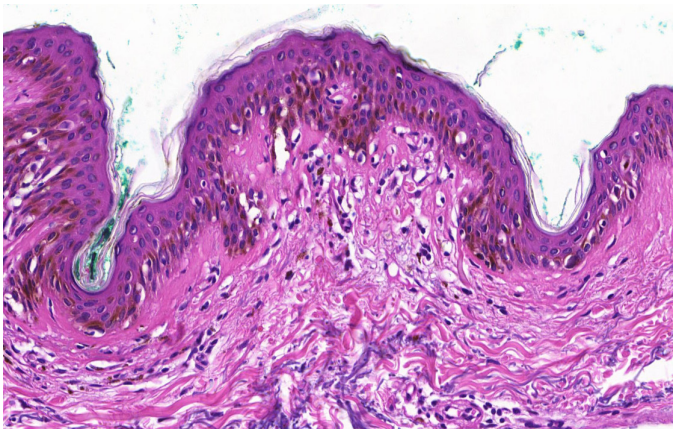

Figure 4: Nevus spilus, Hematoxylin & eosin staining, 200x. Histopathological subtype: melanocytic junctional nevus. Presence of melanocytic cell nest at a dermoepidermal junction, with adjacent lentiginous melanocytic hyperplasia

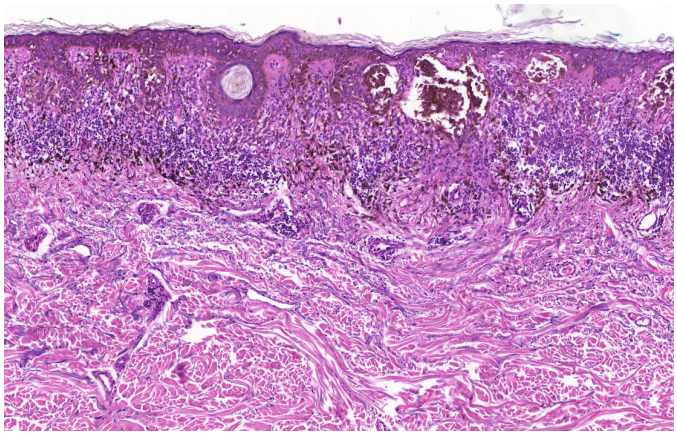

Figure 5: Extensive superficial melanoma, Hematoxylin & eosin stain, 60x. Asymmetric lentiginous proliferation of atypical melanocytes, atrophy of the epidermis, with the formation of irregularly distributed nests, amidst intense lymphocytic infiltrate and pigmentary effusion

that the risk of malignancy can vary from 0.13% to 0.2%.[13,14] Under microscopy, the darkest spots reflect junctional nevus cells nests, compound and intradermal, and more rarely *Spitz* nevus and blue nevus.[6]

It is crucial to detect clinical elements that suggest a higher risk of developing of melanoma in these patients' follow-up. Rhodes and Mihm assumed that clinically irregular lesions could be associated with atypical histopathological features, designating them as "dysplastic" nevus spilus, and thus differentiating them from the "typical" nevus spilus.[10] Our patient presented a nevus *spilus* of the acquired type. The lesion was suspected of malignancy, represented by the asymmetric macula, blackened, with irregular edges over the nevus. Dermoscopy showed an irregular pigmented network, with thickening and abrupt termination points on the lesion's periphery. Histopathological examination confirmed the hypothesis of malignancy, showing extensive superficial melanoma in the area corresponding to the macula, with several shades of black, observed clinically.

There is a probability that the nevus spilus have a higher risk of developing into a melanoma.[7,8,9] An increased risk of malignancy would be theoretically possible since nevus spilus is a subtype of congenital melanocytic nevus (CMN), that is, a hamartomatous proliferation of melanocytes. There is still no evidence that the presence of hair predisposes to melanoma.[6]

However, the nevus spilus appears to have a noticeably lower risk of malignant transformation than other classic CMNs of the same size. One explanation would be that the CMN's nevus cells are found in deeper layers of the dermis. Also, it is known that the greater the number of melanocytes, the greater the potential for malignant degeneration.[6] There is still no protocol in the literature for the management or follow-up of nevus *spilus*.[4] In the case presented, there was no recurrence or metastasis during the follow-up. This report and the other publications teach the importance of clinical follow-up associated with dermoscopy for the early detection and treatment of malignant lesions. Self-examination is advisable for patients with nevus *spilus*, paying attention to changes in color or irregular elements. Excisional biopsy in lesions suspected of malignancy on the nevus is essential for the early diagnosis of melanoma.[9,12,15]

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