

## PHOTOLETTER TO THE EDITOR

## Blue nevus with satellitosis mimicking melanoma. Contribution of dermoscopy and reflectance confocal microscopy.

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**Abstract**

Blue nevus is an acquired benign melanocytic nevus that can undergo malignant transformation. We report a 70-year-old man who presented with a recently enlarged long-term blue nodule on his scalp. He reported onset of new satellitosis around the lesion. Although clinically thought to be a malignant melanoma, histopathological, dermoscopic and reflectance confocal-microscopy examinations did not confirm this diagnosis. (*J Dermatol Case Rep.* 2012; 6(2): 54-56)

**Key words:**

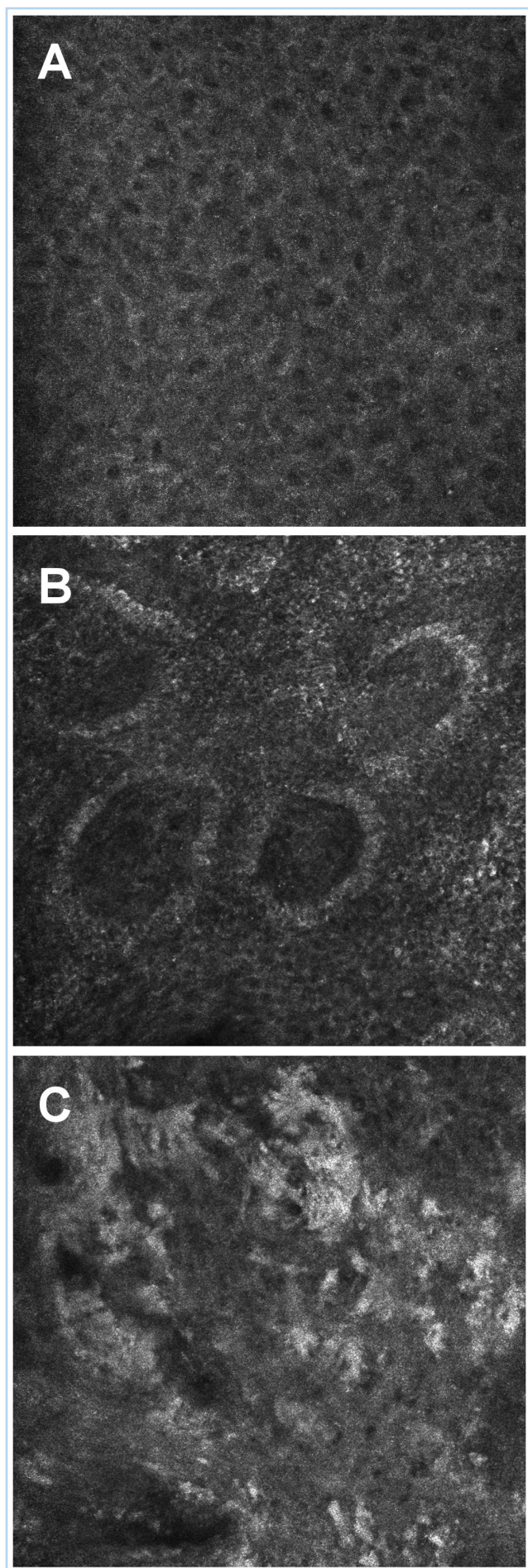
Blue nevus, dermoscopy, malignant blue nevus, melanoma, reflectance confocal microscopy

Malignant blue nevus (MBN) is a rare but aggressive melanoma, commonly located on the scalp. Most MBNs are associated with pre-existing benign blue nevi (BN). The development of satellite lesions in a BN is an ominous indicator of malignant change. We report a rare case of blue nevus on the scalp with satellitosis, which mimicked melanoma, but that dermoscopic examination and reflectance confocal microscopy (RCM) suggested was benign. The diagnosis of a benign BN was confirmed by pathological examination of the tumor.

A 70-year-old man, referred to our department with a long-term but recently enlarged blue nodule on his scalp. The lesion was known for years. Recent history reported an increase in size and had new macules around the lesion. Dermatological examination showed an 8-mm homogeneous, regularly shaped, blue-pigmented nodule



**Figure 1.** Dermoscopic image of the blue nodule (x 20): homogeneous blue pigmentation and regular shape.

**Figure 2**

*Reflectance confocal microscopy examination. (A) Normal epidermis. (B) Homogeneously sized and shaped dermal papillary rings. (C) Scattered large, triangular-to-polygonal bright cells (melanophages) in the dermis. Bar = 5  $\mu$ m.*

with four guttate and linear macular peripheral satellite lesions. The rest of the clinical examination was normal. Dermatoscopic examination of the blue nodule revealed homogeneous blue pigmentation and a regular shape (Fig. 1). RCM showed a normal pattern of the epidermis without signs of melanocytic proliferation (Fig. 2A) and homogeneously sized and shaped dermal papillary rings (Fig. 2B). Within the dermis, melanophages were identified as scattered large, triangular-to-polygonal bright cells (Fig. 2C). Histopathological examination of the nodule revealed groups of dermal fusiform cells and abundant melanophages, without signs of malignancy. The diagnosis of benign cellular blue nevus was made. Histopathological examination of the satellite lesions revealed no malignant change.

This case report of cellular blue nevus of the scalp displayed clinical symptoms of local spread, yet both dermatoscopic and RCM examinations of the lesion suggested it was benign. However, it was not possible to exclude the diagnosis of melanoma on the basis of skin imaging, due to the presence of satellitosis, the benign nature of the BN was confirmed histologically. Only four cases of benign BN with satellite lesions simulating melanoma have been reported.<sup>1-4</sup>

The term of MBN has been used to describe malignant change that arises in a pre-existing blue nevus, melanoma that arises at the site of a previously excised blue nevus, melanoma with architectural or cytological features that mimic blue nevus (but apparently arising *de novo*), or melanoma that has an admixed, residual, benign blue nevus component. However, clinical examination of a BN is difficult as symptoms of malignant transformation are poor and arise late in the disease.

Identification of a focal pigmented network, globules, streaks, vessels, or signs of regression on dermatoscopic examination suggests the possibility of a primary nodule or metastatic melanoma.<sup>5</sup> In our case, the presence of homogeneous blue pigmentation on dermatoscopy, without signs of malignancy, suggested a benign lesion.

Findings from RCM are subtle as the lesion occurs in the dermis, and shows normal honeycomb patterning and dermal papillary rings. Within the dermis, histological examination reveals brightly refractile dendritic cells between moderately refractile collagen bundles. Melanophages, which may occur in blue nevi, appear as scattered brightly refractile, large, plump, dermal polygonal cells.<sup>6</sup>

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