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Multiple Blue Macules and Papules on the Scalp

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REPORT OF A CASE

A 71-year-old Puerto Rican woman with a history of breast cancer was referred for dermatologic evaluation by her oncologist for re-evaluation of pigmented lesions on the scalp, initially noted eight years prior. She had no personal or family history of melanoma. Physical examination revealed a 6 mm blue papule with sixteen discrete 2-3 mm blue satellite macules within a normally pigmented 2 cm area of the left parietal scalp (**Figure 1**, shown after biopsy). Biopsies of the largest papule (**Figures 2 and 3**, hematoxylin-eosin) and a satellite were performed.

WHAT IS YOUR DIAGNOSIS?

ANSWER

Common Blue Nevus with Satellitosis

MICROSCOPIC FINDINGS

Shave biopsy of the largest, central papule revealed a fibrotic dermis containing many heavily pigmented oval, spindle-shaped, and dendritic melanocytes and melanophages (**Figure 2**). Pale cells, mitotic figures, cytologic atypia and nuclear pleomorphism were not observed (**Figure 3**). Similar findings were observed in a punch biopsy of an adjacent satellite macule (not shown).

DISCUSSION

Clinically, the common blue nevus with satellitosis is a striking mimic for melanoma with in-transit metastases. This blue nevus variant is defined by a large central “mother” papule or plaque with multiple nearby smaller satellite macules and papules on a background of normally pigmented skin. The basic histopathology of the mother and the satellites is the same: that of a benign blue nevus.

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There are three main types of solitary blue nevus: common, cellular and combined. There are several unusual variants of *multiple, grouped blue nevi* which are the principle entities to recognize and differentiate when presented with a patient such as ours: the plaque-type blue nevus, the nevus spilus with a predominance of blue nevi, the agminated blue nevus and the blue nevus with satellitosis. There has been confusion regarding the nomenclature and differentiation of these types in the literature.

The plaque-type blue nevus is defined by blue papules and nodules with bluish discoloration of the intervening skin. Histopathology has been described as that typical of common blue nevus, with a dermal melanocytosis similar to Mongolian spot in the intervening areas of blue discoloration.¹

The nevus spilus with a predominance of blue nevi must have a tan or café-au-lait background; the nevi within can be a mixture of different types of melanocytic nevi of varying sizes but with a majority of blue nevi. Marchesi *et al* reported a case of nevus spilus with exclusively common blue nevi within.²

In contrast, the agminated blue nevus has blue nevi of approximately the same size clustered over a background of normally pigmented skin. This diagnosis is quite rare; Pizzichetta *et al* recently published a notable case.³

To date, only three other cases of common blue nevus with satellitosis have been reported.^{4,5,6} Each of them was fully excised; in one case, 2.5 cm margins of normal skin were taken.⁶ Despite this, the natural history of this diagnosis is suspected to be similar to that of the solitary blue nevus. The appearance of the blue nevi in our patient was stable over an eight-year period, and as such, our patient has opted for conservative management.

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Figure 1.

Figure 2.

Figure 3.