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212 Diving into the blue: in vivo microscopic characterization of the dermoscopic blue hue.

Pellacani G, Bassoli S, Longo C, Cesinaro AM, Seidenari S.; J Am Acad Dermatol. 2007 Jul;57(1):96-104.

ABSTRACT

BACKGROUND: In dermoscopy the presence of a blue hue is a clue for malignancy, although a blue tint is sometimes observable in benign lesions.

OBJECTIVE: To identify the in vivo confocal microscopy correlates of the blue hue for improving diagnostic accuracy for melanoma.

METHODS: Fifty-seven melanomas, 41 junctional, 88 compound, and 27 Spitz nevi were studied by dermoscopy, confocal microscopy, and histopathology.

RESULTS: Confocal microscopy enabled the distinction between blue areas and blue veil, the former characterized by plump cells corresponding to melanophages and inflammatory infiltrate at histology, the latter by the contemporary presence of epidermal and dermal features consistent with diagnosis of melanoma, such as disarranged pattern, pagetoid cells, cytologic and architectural atypias, nonhomogeneous and cerebriform clusters, and dermal nucleated cells.

LIMITATIONS: Confocal microscopy failed to accurately distinguish Spitz nevi, because of the presence of cytoarchitectural disarray in the epidermis and the upper dermis.

CONCLUSION: Confocal microscopy enabled the in vivo identification of characteristic cytological substrates correlated with the blue features in dermoscopy.