

Medical > In Vivo > Melanoma & Pigmented Lesion Research

179 De novo melanoma and melanoma arising from pre-existing nevus: in vivo morphologic differences as evaluated by confocal microscopy.

Longo C, Rito C, Beretti F, Cesinaro AM, Piñeiro-Maceira J, Seidenari S, Pellacani G.; *J Am Acad Dermatol.* 2011 Sep;65(3):604-14.

ABSTRACT

BACKGROUND: Although in the majority of melanomas there is no evidence of pre-existing melanocytic nevus, it is believed that malignant transformation may sometimes occur within a benign precursor.

OBJECTIVES: We sought to describe the morphologic features of de novo melanoma and melanoma arising from nevi by means of in vivo confocal microscopy, and to correlate them with their corresponding histopathologic features.

METHODS: A total of 113 consecutive, histopathologically proven melanoma cases, 33 arising from a nevus and 80 occurring de novo, were imaged by confocal microscopy and retrospectively evaluated. Cyto-architectural features preferentially expressed in melanomas arising from nevi and in de novo melanomas were defined.

RESULTS: By confocal microscopy, abrupt transition, localized distribution of junctional atypical cells, and the presence of dense dermal nests were the most helpful criteria for categorizing a melanoma as arising from a nevus. Melanomas arising from common and congenital nevi were predominantly composed of roundish, monomorphous cells, whereas melanomas arising either de novo or from dysplastic nevi were characterized by markedly pleomorphic cells.

LIMITATIONS: The study is retrospective.

CONCLUSION: Confocal microscopy is effective in identifying melanoma even when a nevus is simultaneously present, confirming the clinical usefulness of this methodology. Moreover, distinctive features were observed in de novo melanomas and melanomas arising from nevi, permitting accurate distinction between the two groups. Finally, differences in cell morphology, easily detectable by confocal microscopy, seemed to characterize different melanoma types.