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### 222 | Reflectance-Mode Confocal Microscopy of Pigmented Skin Lesions – Improvement in Melanoma Diagnostic Specificity

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#### ABSTRACT

**BACKGROUND:** In vivo confocal microscopy enables skin visualization with a quasihistopathologic resolution.

**OBJECTIVE:** We sought to describe confocal features in melanocytic lesions and to evaluate their diagnostic significance for melanoma (MM) identification.

**METHODS:** Thirty seven MMs, 49 acquired nevi, and 16 Spitz/Reed nevi, presenting equivocal clinicodermoscopic aspects were investigated by confocal microscopy.

**RESULTS:** MMs and nevi significantly differed for some aspects. In multivariate analysis, the presence of nonedged dermal papillae, atypical cells, and isolated nucleated cells within dermal papilla, pagetoid cells, widespread pagetoid infiltration, and cerebriform clusters were strongly correlated with MM diagnosis. A receiver operating characteristic curve value of 0.952 was obtained.

**LIMITATIONS:** Spitz/Reed nevi represented a pitfall in confocal diagnosis, owing to the frequent observation of pagetoid

infiltration, architectural disarray, and cytologic atypia, and to the impossibility of evaluating cell maturation with depth.

**CONCLUSION:** Characterization of confocal microscopy features of MMs and nevi seems to improve diagnostic accuracy for melanocytic lesions that are difficult to diagnose.