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### 215 Correlation of dermoscopic structures of melanocytic lesions to reflectance confocal microscopy.

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#### ABSTRACT

**OBJECTIVE:** To determine the utility of reflectance confocal microscopy (RCM) in the in vivo evaluation of dermoscopic structures of melanocytic lesions.

**DESIGN:** For each described dermoscopic feature, we evaluated by RCM at least 2 melanocytic lesions. A digital camera connected to the confocal computer enabled direct analysis of the dermoscopic structures. To ascertain precision of correlation, the orientation of the dermoscopic and RCM images were compared using a superimposed grid.

**SETTING:** Dermatology clinic specializing in pigmented lesions. Patients Eleven patients with melanocytic lesions, including 2 melanomas, 1 Spitz nevus, 7 dysplastic nevi, and 1 compound nevus. Main Outcome Measure Direct correlation of structures seen using dermoscopy with those seen using RCM.

**RESULTS:** There was a good correlation between the global dermoscopic pattern and findings on the 4 x 4-mm mosaic of confocal images at the level of the dermoepidermal junction. The atypical network correlated with variability in the size and shape of dermal papillae. Globules corresponded with aggregates of bright cells, and darker shades of brown on dermoscopy appeared brighter on RCM. In peripheral streaks, RCM showed dense aggregates of pleomorphic cells of variable brightness and ill-defined cellular borders. These aggregates were continuous with the bright mesh that composed the central bulk of the lesion. A blue-white veil correlated with disruption of the rimmed papillae meshlike pattern and sometimes with the presence of bright cells corresponding to melanophages.

**CONCLUSION:** Correlating dermoscopic structures to RCM features is possible and a necessary step toward understanding the potential benefits of RCM in the clinical setting.