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214 | Correlation of Dermoscopy with In Vivo Reflectance Confocal Microscopy of Streaks in Melanocytic Lesions

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ABSTRACT

OBJECTIVES: To analyze dermoscopically identified streaks by direct correlation with features visualized on reflectance confocal microscopy (RCM).

DESIGN: We evaluated by RCM melanocytic lesions showing peripheral streaks on dermoscopy. A digital camera connected to the RCM computer enabled direct analysis of the streaks. The lesions were excised and histopathologically analyzed.

SETTING: Dermatology clinic specializing in pigmented lesions.

PATIENTS: The study population comprised 7 patients with melanocytic lesions, including 2 melanomas, 4 dysplastic nevi, and 1 compound nevus with spitzoid features.

RESULTS: In 6 of the cases, peripheral streaks were visualized on RCM as confluent aggregates composed of bright, ill-demarcated cells. These aggregates were contiguous with the bright central part of the lesion and appeared to be curving around dermal papillae. Of the 6 lesions, 3 with elongated aggregates visualized on RCM harbored peripheral, elongated nests on histopathologic examination, and 2 with shorter, more ill-defined peripheral aggregates visualized on RCM had smaller, more poorly formed peripheral nests on histopathologic examination. The seventh lesion showed few peripheral streaks on dermoscopy; however, corresponding features visualized on RCM showed discrete, dense, round nests aligned in proximity. We did not recognize in the present series distinguishing characteristics on RCM that could

differentiate between the peripheral streaks of malignant melanoma and nevi.

CONCLUSIONS: Direct dermoscopy-RCM correlation is a feasible method to study streaks and may help to improve the classification methods used in dermoscopy. Additional studies with larger series are needed to confirm our findings and may help elucidate the morphologic and biological nature of

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peripheral streaks.