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### Lesions Mimicking Melanoma at Dermoscopy Confirmed Basal Cell Carcinoma: Evaluation with Reflectance Confocal Microscopy.

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#### ABSTRACT

**BACKGROUND:** Atypical basal cell carcinoma (BCC), characterized by equivocal dermoscopic features typical of malignant melanoma (MM), can be difficult to diagnose. Reflectance confocal microscopy (RCM) enables in vivo imaging at nearly histological resolution. **OBJECTIVES:** To evaluate with RCM atypical melanocytic lesions identified in dermoscopy, according to common RCM criteria for the differential diagnosis of BCC, and to identify representative RCM parameters for superficial (sBCCs) and nonsuperficial (nsBCCs) basal cell carcinomas (BCCs). **METHODS:** A retrospective analysis of consecutive patients evaluated with RCM, selecting excised lesions classified at dermoscopy with ?1 score from the re visited 7-point checklist, mimicking melanoma, registered between 2010 and 2016. Cluster analysis identified BCC subclassifications. **RESULTS:** Of 178 atypical lesions, 34 lesions were diagnosed as BCCs with RCM. Lesions were confirmed BCCs with histopathology. Dermoscopic features included atypical network (55.9%) and regression structures (35.5%) associated with sBCCs, and an atypical vascular pattern (58.8%) and irregular blotches (58.8%) with nsBCCs. Hierarchical cluster analysis identified 2 clusters: cluster 1 (100% sBCCs) was characterized by the presence of cords connected to the epidermis (90%,  $p < 0.001$ ), tumor islands located in the epidermis (100%,  $p < 0.001$ ), smaller vascular diameter (100%,  $p < 0.001$ ) and solar elastosis (90%,  $p = 0.017$ ), and cluster 2 (nsBCCs 85%) was defined by the dermic location of tumor islands (87.5%,  $p < 0.001$ ) with branch-like structures (70.8%,  $p = 0.007$ ) and surrounding collagen (83.3%,  $p = 0.012$ ), peripheral palisading (83.3%,  $p = 0.012$ ) and coiled vascular morphology (79.2%,  $p < 0.001$ ) with a larger vascular diameter (50%,  $p < 0.001$ ). **CONCLUSIONS:** RCM is able to diagnose BCCs mimicking melanoma at dermoscopy and seems able to identify sBCCs and nsBCCs. © 2018 S. Karger AG, Basel. **KEYWORDS:** Basal cell carcinoma; Dermoscopy; Melanoma; Noninvasive diagnosis; Reflectance confocal microscopy  
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