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189 | The impact of in vivo reflectance confocal microscopy on the diagnostic accuracy of lentigo maligna and equivocal pigmented and nonpigmented macules of the face.

Guitera P, Pellacani G, Crotty KA, Scolyer RA, Li LX, Bassoli S, Vinceti M, Rabinovitz H, Longo C, Menzies SW.; *J Invest Dermatol.* 2010 Aug;130(8):2080-91. DOI: 10.1038/jid.2010.84

ABSTRACT

Limited studies have reported the in vivo reflectance confocal microscopy (RCM) features of lentigo maligna (LM). A total of 64 RCM features were scored retrospectively and blinded to diagnosis in a consecutive series of RCM sampled, clinically equivocal, macules of the face (n=81 LM, n=203 benign macules (BMs)). In addition to describing RCM diagnostic features for LM (univariate), an algorithm was developed (LM score) to distinguish LM from BM. This comprised two major features each scoring +2 points (nonedged papillae and round large pagetoid cells > 20 microm), and four minor features; three scored +1 point each (three or more atypical cells at the dermoepidermal junction in five 0.5 x 0.5 mm(2) fields, follicular localization of atypical cells, and nucleated cells within the dermal papillae), and one (negative) feature scored -1 point (a broadened honeycomb pattern). A LM score of > or = 2 resulted in a sensitivity of 85% and specificity of 76% for the diagnosis of LM (odds ratio (OR) for LM 18.6; 95% confidence interval: 9.3-37.1). The algorithm was equally effective in the diagnosis of amelanotic lesions and showed good interobserver reproducibility (87%). In a test set of 29 LMs and 44 BMs, the OR for LM was 60.7 (confidence interval: 11.9-309) (93% sensitivity, 82% specificity).