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205 In vivo reflectance confocal microscopy enhances secondary evaluation of melanocytic lesions.

Guitera P1, Pellacani G, Longo C, Seidenari S, Avramidis M, Menzies SW.
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ABSTRACT

We recently described an in vivo reflectance confocal microscopy (RCM) method and our aim was to evaluate a possible additive value of this type of analysis in the management of melanocytic lesions. In two referral centers (Sydney and Modena), lesions (203 nevi and 123 melanomas (MMs) with a median Breslow thickness of 0.54 mm) were excised on the basis of clinical suspicion (history, dermoscopy examination, and/or digital monitoring). The RCM method was also trialed on a non-biopsied population of 100 lesions, which were clinically and dermoscopically diagnosed as benign nevi. All RCM and dermoscopy diagnoses were performed blinded to the histopathological diagnosis. Firstly, in the study population, a high interobserver agreement (on a subset of 90 lesions) was seen with the RCM method, which had superior specificity (68%, 95% confidence interval (95% CI): 61.1-74.3) for the diagnosis of MM compared with dermoscopy (32%, 95% CI: 25.9-38.7), while showing no difference in sensitivity (91%, 95% CI: 84.6-95.5, RCM; 88%, 95% CI: 80.7-92.6 dermoscopy). The two techniques had a weak correlation, resulting in only 2.4% of MMs being misclassified by both techniques. Diagnosis of light-colored lesions is improved by RCM (specificity 84%, 95% CI: 66.3-94.5) compared with dermoscopy (specificity 39%, 95% CI: 23.7-56.2). Secondly, the RCM method classified 100% of the non-biopsied control nevi population as benign. Comment inThe complexity of diagnosing melanoma. [J Invest Dermatol. 2009] PMID: 18633444 DOI: 10.1038/jid.2008.193