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78 | In Vivo Reflectance Confocal Microscopy for the Diagnosis of Melanoma and Melanotic Macules of the Lip.

ABSTRACT

Importance: Benign melanotic macules (MAC) are the most frequent cause of lip pigmentation and sometimes difficult to differentiate from lip melanoma (MEL). Objectives: To report in vivo reflectance confocal microscopy (RCM) features of normal lips of different phototypes and to identify features that assist in distinguishing MEL from MAC using dermoscopy and RCM. Design, Setting, and Participants: For this retrospective observational study, 2 groups of patients from 2 tertiary referral centers for melanoma (Sydney Melanoma Diagnostic Centre and Melanoma Institute Australia) were recruited between June 2007 and January 2015. Group 1 included patients with normal lips and different phototypes, and Group 2 consisted of patients with MAC and MEL; RCM and dermoscopy were used for lips analysis. Main Outcomes and Measures: Overall, 92 RCM features were correlated with clinical history, dermoscopic images, and histopathology in all patients with MEL and 5 patients with MAC. Results: Images from the vermillion and/or mucosal part of the lip were recorded from 10 patients with clinically normal lips (mean [SD] age, 34.5 [6.1] years), 16 patients with MAC (mean [SD] age, 49.6 [17.9] years), and 5 patients with 6 cases of MEL (1 patient had a recurrent lesion; mean [SD] age, 56.2 [15.5] years). In normal lips, the draped pattern-a previously described MAC RCM feature-was identified in all cases. In MEL, the following findings were frequent and significantly different from MAC: epidermal disarray; pagetoid infiltration of dendritic and/or round cells; a nonspecific architectural pattern at the dermoepidermal junction (DEJ); nonhomogenously distributed papillae; continuous (lentiginous) proliferation of cells with marked atypia at the DEJ, especially in interpapillary spaces; a higher number of dendritic cells (especially roundish); and atypical round cells at the DEJ. The cellular body area of dendritic cells was about the double in MEL compared with MAC. An RCM lip algorithm was developed that provided 100% sensitivity and 88% specificity for the diagnosis of MEL of the vermillion and mucosal part of the lip. With dermoscopy, MAC were correctly classified as benign in 13 of 16 cases (81%) and MEL were classified as equivocal or malignant in 5 of 6 cases (83%).Conclusions and Relevance: Reflectance confocal microscopy can assist in the differential diagnosis of lip MEL and MAC. An RCM Lip Score that we developed based on study results is proposed and needs to be validated on an independent data set. PMID:28467525 DOI:10.1001/jamadermatol.2017.0504