Overview

19 Clinical Indications for Use of Reflectance Confocal Microscopy for Skin Cancer Diagnosis.

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ABSTRACT

Importance: Reflectance confocal microscopy (RCM) improves diagnostic accuracy in skin cancer detection when combined with dermoscopy; however, little evidence has been gathered regarding its real impact on routine clinical workflow, and, to our knowledge, no studies have defined the terms for its optimal application. Objective: To identify lesions on which RCM performs better in terms of diagnostic accuracy and consequently to outline the best indications for use of RCM. Design, Setting, and Participants: Prospectively acquired and evaluated RCM images from consecutive patients with at least 1 clinically and/or dermoscopically equivocal skin lesion referred to RCM imaging, from January 2012 to October 2014, carried out in a tertiary referral academic center. Main Outcomes and Measures: A total of 1279 equivocal skin lesions were sent for RCM imaging. Spearman correlation, univariate, and multivariate regression models were performed to find features significantly correlated with RCM outcome. Results: In a total of 1279 lesions in 1147 patients, RCM sensitivity and specificity were 95.3% and 83.9%, respectively. The number of lesions needed to excise to rule out a melanoma was 2.4. After univariate and multivariate regression analysis, head and neck resulted as the most appropriate body location for confocal examination; RCM showed a high diagnostic accuracy for lesions located on sun-damaged skin (adjusted odds ratio [aOR], 2.13; 95% CI, 1.37-3.30; P=.001) and typified by dermoscopic regression (aOR, 2.13; 95% CI, 1.31-3.47; P=.002) or basal-cell carcinoma specific criteria (aOR, 9.35; 95% CI, 1.28-68.58; P=.03). Conclusions and Relevance: Lesions located on the head and neck, damaged by chronic sun-exposure, and dermoscopically typified by regression represent best indications for the use of RCM. PMID:27580185 DOI:10.1001/jamadermatol.2016.1188