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"Twin lesions": Which one is the bad one? Improvement of clinical diagnosis with reflectance confocal microscopy.

Saral S, Hartmann D, Letulè V, Ruzicka T, Ruini C, von Braunmühl T. Dermatol Pract Concept. 2017 Jan 31;7(1):11-17. doi: 10.5826/dpc.0701a02. eCollection 2017.

ABSTRACT

BACKGROUND: In vivo reflectance confocal microscopy (RCM) is a novel non-invasive diagnostic tool, which is used to differentiate skin lesions. Even in lesions with similar dermatoscopic images, RCM may improve diagnostic accuracy. METHODS: Three sets of false "twin lesions" with similar macroscopic and dermatoscopic images are matched. All lesions are evaluated with RCM and lesions are excised for further evaluation. Corresponding features in confocal images, dermatoscopy and histopathology are discussed. RESULTS: In all matched pairs, one of the lesions was diagnosed as melanoma with the observation of melanoma findings such as: epidermal disarray, pagetoid cells in epidermis and cellular atypia at the junction. Benign lesions were differentiated easily with RCM imaging. CONCLUSION: Examining dermatoscopically difficult and/or similar lesions with RCM facilitates diagnostic and therapeutic decision making. Using RCM in daily practice may contribute to a decrease in unnecessary excisions. KEYWORDS: clinical diagnosis; dermatoscopy; melanoma; nevus; reflectance confocal microscopy; skin imaging PMID:28243488 PMCID:PMC5315034 DOI:10.5826/dpc.0701a02 Free PMC Article