The significance of reflectance confocal microscopy in the assessment of solitary pink skin lesions


ABSTRACT

BACKGROUND: Solitary pink lesions often manifest nondescript clinical and dermatoscopic primary morphologic features. The differential diagnosis for pink lesions tends, therefore, to be broad, ranging from inflammatory processes to malignancy. In vivo reflectance confocal microscopy (RCM) may help in the evaluation of pink lesions.

OBJECTIVE: We sought to demonstrate the use of RCM as an adjunct to the bedside diagnosis of pink lesions.

METHODS: We describe a series of patients with clinically and dermatoscopically equivocal pink lesions for which RCM examination allowed for a rapid and accurate diagnosis. All lesions were excised for histopathologic evaluation. Integrating the findings in the case series with a literature review, we present RCM diagnostic criteria for pink lesions.

RESULTS: Lesions included basal cell carcinoma, squamous cell carcinoma, amelanotic melanoma, and inflamed seborrheic keratosis. RCM shows distinctive findings for each diagnostic entity when stratified by anatomic level into suprabasal epidermis, dermoepidermal junction, and papillary dermis. In the cases presented RCM allowed for a rapid and accurate noninvasive diagnosis.

LIMITATIONS: The study is descriptive and does not test accuracy of RCM criteria in a prospective series of pink lesions.

CONCLUSION: RCM may add useful diagnostic features to the clinical evaluation of solitary pink lesions.