

Medical > In Vivo > Other material

97

In vivo reflectance confocal microscopy of erythematous skin diseases.

Koller S, Gerger A, Ahlgrimm-Siess V, Weger W, Smolle J, Hofmann-Wellenhof R.; *Exp Dermatol.* 2009 Jun;18(6): DOI: 10.1111/j. 1600-0625.2008.00822.x.2009: 536-40.,2009

ABSTRACT

BACKGROUND: In vivo reflectance confocal microscopy (RCM) represents a promising imaging tool that allows a non-invasive examination of skin morphology in real time at nearly histological resolution, showing microanatomical structures and individual cells.

OBJECTIVES: The aim of our study was to evaluate the diagnostic accuracy of confocal examination of erythematous skin diseases, to define typical RCM-features and assess them for their presence or absence, diagnostic performance and reliability.

METHODS: Three independent observers received standardized instructions about diagnostic RCM-features of erythematous skin diseases. A total of 1700 RCM images obtained from 75 patients with psoriasis, contact dermatitis, mycosis fungoides, chronic discoid lupus erythematosus (CDLE) or subacute cutaneous lupus erythematosus (SCLE) and from 10 'healthy adults' without any skin disease were evaluated by each observer.

RESULTS: Overall, sensitivity and specificity values as observed by three observers were, respectively, 89.13% and 95.41% for psoriasis; 83.33% and 92.31% for contact dermatitis; 62.96% and 94.53% for SCLE/CDLE; and 63.33% and 92.89% for mycosis fungoides.

CONCLUSIONS: Reflectance confocal microscopy examination appears to be a promising method for non-invasive assessment of erythematous skin diseases. This study provides a set of well-described morphological criteria with obvious diagnostic impact, which should be used in further investigations.