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In Vivo Reflectance Confocal Microscopy: Emerging Role in Noninvasive Diagnosis and Monitoring of Eczematous Dermatoses.

Maarouf M, Costello CM, Gonzalez S, Angulo I, Curiel-Lewandrowski CN, Shi VY. *Actas Dermosifiliogr.* 2019 Jun 12. pii: S0001-7310(19)30109-7. doi: 10.1016/j.ad.2018.08.008.

ABSTRACT

Dermatologic diagnosis and monitoring have been dependent largely on visual grading. A skin biopsy is performed in case of diagnostic uncertainty, but can be traumatic, and results are delayed due to time for specimen transport and processing. Biopsies also destroy specimens, prohibiting lesion evolution monitoring. In vivo reflectance confocal microscopy (RCM) offers a diagnostic alternative to skin biopsy. RCM captures real-time, high-resolution images, and has been piloted for the evaluation of various dermatologic conditions. Identification of unique RCM features may distinguish dermatoses with similar clinical morphologies. Allergic contact dermatitis (ACD) and irritant contact dermatitis (ICD) are diagnosed by patch testing that currently uses a subjective scoring system. RCM has increasingly been studied for early detection and severity grading of CD. Common RCM features shared by ACD and ICD are stratum corneum disruption, vesicle formation, exocytosis, spongiosis, and parakeratosis. Features unique to ACD are vasodilation, increased epidermal thickness, intercellular edema, and acanthosis. Features unique to ICD are detached corneocytes and targetoid keratinocytes. This review summarizes the use of RCM in evaluating contact eczematous conditions and aims to spark future research and interest in this promising tool. Copyright © 2019 AEDV. Publicado por Elsevier España, S.L.U. All rights reserved. KEYWORDS: Allergic contact dermatitis; Dermatitis alérgica de contacto; Dermatitis irritativa de contacto; In vivo microscopy; Irritant contact dermatitis; Microscopia confocal de reflectancia; Microscopia in vivo; Reflectance confocal microscopy PMID:31202471 DOI:10.1016/j.ad.2018.08.008