

Overview

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In vivo reflectance confocal microscopy in daily practice: Image features correlated to histopathology.

Pan ZY, Dong DK, Chen SJ, Lu LY1, Hu TT, Ju Q. *Skin Res Technol.* 2017 Nov 27. doi: 10.1111/srt.12417.

ABSTRACT

BACKGROUND:In vivo reflectance confocal microscopy (RCM) represents a promising technique for noninvasive visualization of skin lesions. In the clinical daily practice, doctors want to know the relationship between the RCM images and the skin pathological changes. **OBJECTIVE:**The aim of this study was to identify the basic skin pathological changes under RCM, and use RCM terminology to describe these pathological changes. **METHODS:**A total of 100 patients were recruited and were evaluated both by RCM and histopathologic examination. Ten healthy volunteers were also recruited as control. RCM examinations were done and biopsies of the lesions at the same site of RCM examination were performed for histopathology analysis. **RESULTS:**The pathological changes including hyperkeratosis, parakeratosis, acanthosis, papilloma, spongiosis, pustule, vacuolar degeneration, hyperpigmentation, changes of collagen fibers, and vascular changes can be imaged by RCM and corresponded well to their histopathology. RCM failed to find the atypical keratinocytes in two squamous cell carcinoma cases because of the hyperkeratosis and failed to find the vascular changes in one port wine stain cases because of the limitation of detecting depth. **CONCLUSION:**Features correlating well to histopathology are observed on RCM. RCM can be used as an auxiliary diagnosis tool for the clinical diagnosis. © 2017 John Wiley & Sons A/S. Published by John Wiley & Sons Ltd. **KEYWORDS:**clinical using; noninvasive diagnosis; pathological changes; reflectance confocal microscopy PMID: 29178413 DOI: 10.1111/srt.12417