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19 | Interrater and intrarater agreement of confocal microscopy imaging in diagnosing and subtyping basal cell carcinoma.

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ABSTRACT

BACKGROUND:Reflectance confocal microscopy (RCM) imaging can be used to diagnose and subtype basal cell carcinoma (BCC) but relies on individual morphologic pattern recognition that might vary among users. OBJECTIVES:We assessed the inter-rater and intrarater agreement of RCM in correctly diagnosing and subtyping BCC. METHODS:In this prospective study, we evaluated the inter-rater and intrarater agreement of RCM on BCC presence and subtype among three raters with varying experience who independently assessed static images of 48 RCM cases twice with four-week interval (T1 and T2). Histopathologic confirmation of presence and subtype of BCC from surgical excision specimen was defined as the reference standard. RESULTS:The inter-rater agreement of RCM for BCC presence showed an agreement of 82% at T1 and 84% at T2. The agreements for subtyping BCC were lower (52% for T1 and 47% for T2). The intrarater agreement of RCM for BCC presence showed an observed agreement that varied from 79% to 92%. The observed agreements for subtyping varied from 56% to 71%. CONCLUSIONS:In conclusion, our results show that RCM is reliable in correctly diagnosing BCC based on the assessment of static RCM images. RCM could potentially play an important role in BCC management if accurate subtyping will be achieved. Therefore, future clinical studies on reliability and specific RCM features for BCC subtypes are required. © 2017 The Authors. Journal of the European Academy of Dermatology and Venereology published by John Wiley & Sons Ltd on behalf of European Academy of Dermatology and Venereology. PMID: 29265550 DOI: 10.1111/jdv.14771Share on FacebookShare on TwitterShare on Google+