Handheld reflectance confocal microscopy, dermatoscopy and histopathological correlation of common inflammatory balanitis.

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ABSTRACT
BACKGROUND: The term balanitis includes a variety of inflammatory skin diseases involving the glans penis whose clinical diagnosis may be challenging. A biopsy is often required to obtain a definitive diagnosis, although it is barely accepted by patients. Reflectance confocal microscopy (RCM), that provides a real-time, en face imaging of the epidermis and upper dermis, is currently utilized for the diagnosis of some neoplastic and inflammatory skin diseases. The aim of this study was to analyze the RCM handheld findings of some common balanitis and to correlate them with dermatoscopy and histopathological features. MATERIALS AND METHODS: Thirty-two patients with biopsy-proven diagnosis of psoriatic balanitis (10 patients), Zoon's balanitis (11 patients) and lichen sclerosus et atrophicus (11 patients) were evaluated using a handheld RCM device and ×10 dermatoscopy. RESULTS: At the end of the study, each disorder presented specific RCM patterns that correlated with dermatoscopy and histopathological findings. CONCLUSION: The use of handheld RCM as complementary tool in everyday clinical practice for the evaluation of inflammatory diseases involving sensitive areas such as male genitalia, may contribute to reduce the need of invasive procedures. © 2018 John Wiley & Sons A/S. Published by John Wiley & Sons Ltd. KEYWORDS: Zoon's balanitis; balanitis; dermatoscopy; dermoscopy; histopathology; lichen sclerosus; psoriasis; reflectance confocal microscopy
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