Reflectance confocal microscopy for the evaluation of solitary red nodules.


ABSTRACT
The correct assessment of a solitary red nodule in clinical practice is of crucial importance, amelanotic melanoma being the most important differential diagnosis. Dermoscopy is nowadays a pivotal tool in the management of skin tumors, however it has some limitations in the evaluation of nonpigmented lesions, in which the diagnosis is merely based on the evaluation of the vascular pattern. Recently, reflectance confocal microscopy has been introduced as a new, noninvasive technique for the diagnosis of skin lesions. Confocal microscopy provides skin imaging in vivo at cellular level resolution, close to conventional histology. We present a series of clinical scenarios of red nodules, including melanoma metastasis, pyogenic granuloma, eccrine poroma, Spitz nevus and dermatofibroma. Reflectance confocal microscopy examination added important information to the clinical diagnosis and subsequent management in all cases except for dermatofibroma. We discuss the advantages and limitations of this technique in this particular field of application.