ABSTRACT
In vivo reflectance confocal microscopy (RCM) is a non-invasive, repetitive imaging tool that provides real-time images at nearly cellular histological resolution. Application of this technology to skin imaging during the last decade has been a great advance in dermatology. As melanin is the strongest endogenous contrast in human skin, pigmentary disorders caused by abnormal amounts of melanin in the skin could be the most suitable candidates for RCM examination. This article reviewed the RCM applications in the characterization and management of pigmentary disorders. The application of RCM in pigmentary disorders has been expanded to describe hyper- and hypopigmentary disorders as well as pigmented skin tumors. The great advantages of non-invasive and repetitive examination of RCM may provide its usefulness not only in the diagnosis and management of pigmentary disorders, but also in researching pathogenesis of pigmentary disorders.