ABSTRACT
The development of noninvasive optical technologies is revolutionizing the diagnosis of skin tumors. Nonmelanoma skin cancer, the most frequent neoplasm, has become an important health and economic issue, and proper management can avoid unnecessary morbidity and mutilating treatment or relapses. Noninvasive treatment modalities and the recently approved systemic therapies for advanced basal cell carcinoma cases make noninvasive monitoring techniques necessary. Current knowledge, applications, and limitations of the tools most clinically implemented, such as dermoscopy, reflectance confocal microscopy, high frequency ultrasonography, and optical coherence tomography will be reviewed in this article. In addition to the improvement of diagnostic accuracy of skin cancer, using these tools individually or in combination facilitates better management of certain patients and tumors. ©2015 Frontline Medical Communications. KEYWORDS: HDUS; RCM; basal cell carcinoma; confocal microscopy; dermoscopy; high definition ultrasound; in vivo imaging techniques; noninvasive management OCT; optical coherence tomography; reflectance confocal microscopy; skin cancer management.; squamous cell carcinoma PMID:26963115