Imaging in cutaneous surgery.


ABSTRACT
Skin cancer is the most commonly diagnosed cancer in the USA. Mohs micrographic surgery is a microscopically controlled surgical technique that excises lateral and deep surgical margins while also sparing function and achieving a good cosmetic outcome. Given the increasing incidence in skin cancer worldwide and its associated treatment costs, techniques are being developed to improve the time and cost efficacy of this procedure. The use of noninvasive imaging, both in vivo and ex vivo, has the potential to increase efficiency of diagnosis and surgical management of skin cancers. These devices are useful in delineating lateral and deep tumor margins prior to surgery in vivo as well as to detect residual tumor ex vivo virtually in real time. KEYWORDS: Mohs micrographic surgery; Raman spectroscopy; fluorescence confocal microscopy; high-frequency ultrasound; noninvasive imaging; optical coherence tomography; reflectance confocal microscopy; skin cancer PMID: 29121782 DOI: 10.2217/fon-2017-0277