

Medical > In Vivo > Non-Melanoma Skin Cancer Research > Basal Cell Carcinoma

36

Research Techniques Made Simple: Noninvasive Imaging Technologies for the Delineation of Basal Cell Carcinomas.

Que SK. J Invest Dermatol. 2016 Apr;136(4):e33-8. doi: 10.1016/j.jid.2016.02.012.

ABSTRACT

In this article we discuss the development of noninvasive imaging modalities to help delineate tumor margins of basal cell carcinomas in the setting of Mohs micrographic surgery. A review of the available literature reveals that dermoscopy can help delineate basal cell carcinomas before surgical removal but that it has no benefit over clinical inspection in reducing the number of Mohs stages. In contrast, fluorescence confocal microscopy has a sensitivity of 88-96% and specificity of 89-99% for the detection of basal cell carcinomas and can potentially serve as a rapid means for tumor evaluation on ex vivo specimens. Optical coherence tomography has shown some success in the presurgical evaluation of tumor margins in vivo, before surgical excision. With ongoing developments in device portability, speed of image retrieval, and image resolution, these technologies are likely to gain traction in cutaneous oncology research and practice. It is therefore important for dermatology clinicians and researchers to understand the mechanisms, principal uses, advantages, and limitations of each device. Copyright © 2016 The Author. Published by Elsevier Inc. All rights reserved. PMID:27012561
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