Noninvasive Imaging of Skin Tumors


ABSTRACT
In this article, the authors review different approaches to the diagnosis of skin tumors using noninvasive diagnostic tools, which are becoming increasingly reliable and, as a consequence, increasingly popular among physicians and patients. Especially in the realm of pigmented skin lesions, dermoscopy and sonography may add useful information to the clinical constellation, improving the diagnostic performance for early diagnosis of melanoma and for differentiating various melanocytic and nonmelanocytic pigmented lesions. More recently, confocal scanning laser microscopy was introduced as a novel technique that enables the in vivo study of the skin at a nearly histologic resolution, being of diagnostic value in various skin disorders, including basal cell carcinoma and pigmented skin lesions. These modalities have various other potential applications besides diagnosis, including lesion’s selection for biopsy, determination of appropriate therapeutic modalities, verification of treatment efficacy, and decision of surgical margins. Finally, a hint to the use of cytodiagnosis for basal cell carcinoma is provided.