Noninvasive diagnosis of non-melanoma skin cancer: focus on reflectance confocal microscopy


Abstract
Non-melanoma skin cancer (NMSC) represents the most common cutaneous neoplasms and, in the past decade, nonsurgical treatment modalities have been established as part of the management of NMSC. Recently, novel noninvasive diagnostic modalities have been developed and, of these, reflectance confocal microscopy (RCM) offers imaging of the skin in vivo with cellular resolution. NMSCs, including basal cell carcinoma, actinic keratosis and squamous cell carcinoma, have been evaluated by RCM, and diagnostic criteria were defined. By correlation with routine histology sections and in comparison with normal skin, RCM showed high sensitivity and specificity values. RCM allows the noninvasive evaluation of a variety of skin conditions, including NMSC. RCM may aid in the diagnosis and differential diagnosis of NMSC, as well as in monitoring of treatment response to topical treatment modalities. Therefore, RCM appears to be a promising diagnostic tool with many possible applications in dermatology.