The use of reflectance confocal microscopy for monitoring response to therapy of skin malignancies.


ABSTRACT
SUMMARY: Reflectance confocal microscopy (RCM) is a new non-invasive imaging technique that enables visualizing cells and structures in living skin in real-time with resolution close to that of histological analysis. RCM has been successfully implemented in the assessment of benign and malignant lesions. Most importantly, it also enables monitoring dynamic changes in the skin over time and in response to different therapies, e.g., imiquimod, photodynamic therapy, and others. Given the often traumatic nature of skin cancer that affects both the physiology and the psychology of the patients, it is crucial to have methods that enable monitoring the response to treatment but that minimize the distress and discomfort associated with such process. This article provides a very brief overview of the fundamentals of RCM and then focuses on its recent employment as a monitoring tool in skin cancer and other pathologies that may require frequent follow-up.