ABSTRACT

BACKGROUND: Reflectance confocal microscopy (RCM) is an imaging tool that allows the visualization of cellular details without biopsy. To our knowledge, RCM sensitivity and specificity has not been studied in a telemedicine setting. OBJECTIVE: We sought to assess RCM diagnostic accuracy in a support teleconsultation setting. METHODS: Between June 2010 and September 2011, 340 lesions were imaged using a confocal scanning microscope. The images were evaluated by 2 readers, one on site, and the other at a distance. RESULTS: A total of 334 cases were included. For each reader the sensitivity was greater than 90% and specificity for each reader was greater than 60%. Both readers had a combined sensitivity of 98.6% and 44% specificity. LIMITATIONS: RCM may be limited in the correct classification of epithelial tumors. CONCLUSIONS: RCM is a tool in the clinical diagnosis of skin lesions, providing a high diagnostic accuracy in teleconsultation use. Copyright © 2013 American Academy of Dermatology, Inc. Published by Mosby, Inc. All rights reserved. KEYWORDS: AK; BCC; MM; RCM; SCC; SK; actinic keratosis; basal cell carcinoma; cutaneous lesions; malignant melanoma; noninvasive imaging; reflectance confocal microscopy; seborrheic keratosis; squamous cell carcinoma; teledermatology PMID: 24035553 DOI: 10.1016/j.jaad.2013.07.022