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Reflectance confocal microscopy confirms residual basal cell carcinoma on clinically negative biopsy sites before Mohs micrographic surgery: A prospective study.

Navarrete-Dechent C, Cordova M, Aleissa S, Liopyris K, Dusza SW, Phillips W, Rossi AM, Lee EH, Marghoob AA, Nehal KS. *J Am Acad Dermatol.* 2019 Aug;81(2):417-426. doi: 10.1016/j.jaad.2019.02.049. Epub 2019 Jun 19.

ABSTRACT

BACKGROUND: Biopsy specimens from patients with basal cell carcinoma (BCC) can present to surgery with no clinically residual tumor, complicating treatment decisions. **OBJECTIVE:** To evaluate reflectance confocal microscopy (RCM) for the assessment of residual BCC following biopsy. **METHODS:** Consecutive patients with biopsy-proven BCC and no clinical evidence of residual tumor who had been referred for Mohs micrographic surgery were included. Biopsy sites were imaged with a handheld RCM device. On the basis of RCM evaluation, cases were labeled RCM positive or RCM negative. Mohs micrographic surgery was performed in all cases; margins and 15- μ m serial vertical sectioning were evaluated. **RESULTS:** A total of 61 patients were included (mean age, 61.7 years [standard deviation, 12.2 years]; range, 37-87 years); 60.7% were women. The mean lesion size was 5.1 mm (range, 3-12 mm); 73.8% of patients were positive on RCM, and 68.9% had residual BCC on histopathologic examination. The rates of RCM sensitivity, specificity, positive predictive value, and negative predictive value were 92.8%, 68.4%, 86.6%, and 81.2%, respectively. Three cases of BCC (high-risk, infiltrative, and basosquamous) were missed with use of RCM. When high-risk subtypes were excluded ($n = 5$), sensitivity and negative predictive value were both 100%. **LIMITATIONS:** RCM can miss deep-seated residual tumor. **CONCLUSION:** RCM is a valuable tool for the evaluation of residual BCC following biopsy, with the potential to reduce unnecessary surgical procedures. Copyright © 2019 American Academy of Dermatology, Inc. Published by Elsevier Inc. All rights reserved. **KEYWORDS:** Mohs micrographic surgery; basal cell carcinoma; biopsy; dermoscopy; reflectance confocal microscopy; residual; surgery PMID:31227277 PMCID:PMC6635070 [Available on 2020-08-01] DOI:10.1016/j.jaad.2019.02.049