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6 | Reflectance confocal microscopy-guided carbon dioxide laser ablation of low-risk basal cell carcinomas: A prospective study.

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ABSTRACT

BACKGROUND: Basal cell carcinoma (BCC) treatment modalities can be stratified by tumor subtype and recurrence risk. The main limitation of nonsurgical treatment modalities is the lack of histopathologic confirmation. Reflectance confocal microscopy (RCM) is a noninvasive imaging device that provides quasihistologic images. OBJECTIVE: To evaluate the feasibility and efficacy of RCM-guided carbon dioxide (CO2) laser ablation of low-risk BCCs. METHODS: Prospective study with biopsy specimen-proven low-risk BCCs imaged with RCM. RCM was performed on these sites before and after ablation. If residual tumor was found, a new series of laser passes were performed. The patients were then monitored for recurrence clinically and with RCM. RESULTS: Twenty-two tumor sites in 9 patients (5 men, 4 women) were imaged and treated. Median age was 59 ± 12.9 years (range, 30-74 years). Mean tumor size was 7.7 mm (range, 5-10 mm). Residual tumor was identified in 5 of 22 cases (22.7%) under RCM on immediate first-pass postablation sites, prompting additional laser passes. Median follow-up was 28.5 months (range, 22-32 months) with no recurrences found. CONCLUSIONS: Addition of RCM to laser ablation workflow can detect subclinical persistent tumor after initial ablation and may serve as an aid to increase the efficacy of laser ablation. Copyright © 2019 American Academy of Dermatology, Inc. Published by Elsevier Inc. All rights reserved. KEYWORDS: ablation; basal cell carcinoma; carbon dioxide laser; diagnosis; follow-up; laser; reflectance confocal microscopy; treatment PMID:31202871 DOI:10.1016/j.jaad.2019.06.014