Handheld Reflectance Confocal Microscopy for the Detection of Recurrent Extramammmary Paget Disease.


ABSTRACT
Importance: Extramammary Paget disease (EMPD) is commonly refractory to surgical and nonsurgical therapies. Identifying recurrent or persistent EMPD is challenging because the disease is multifocal, and multiple blind scouting biopsies are usually performed in this setting. Handheld reflectance confocal microscopy (HRCM) has been used to diagnose and map primary EMPD and therefore may be used to identify EMPD recurrences. Objective: To evaluate HRCM's diagnostic accuracy in the setting of recurrent or persistent EMPD as well as its potential diagnostic pitfalls. Design, Setting, and Participants: This prospective case series study included patients referred to the Dermatology Service at Memorial Sloan Kettering Cancer Center between January 1, 2014, and December 31, 2016, with biopsy-proven EMPD in whom HRCM was used to monitor treatment response. Five patients were included, and 22 sites clinically concerning for recurrent or persistent disease were evaluated using HRCM and histopathologic examination. In 2 patients, video mosaics were created to evaluate large areas. Main Outcomes and Measures: Sensitivity and specificity of HRCM in identifying recurrent or persistent EMPD; causes for false-negative results according to their location, histopathologic findings, and previous treatments. Results: Of the 22 clinically suspicious sites evaluated in 5 patients (4 men, 1 woman; median [range] age, 70 [56-77] years), 9 (40.9%) were positive for recurrent disease on HRCM and histopathologically confirmed, and 13 (59.1%) sites were negative on HRCM, but 3 of the 13 were positive for EMPD on histopathological examination. In general, HRCM had a sensitivity of 75% and a specificity of 100% in identifying recurrent or persistent EMPD. False-negative results were found in 2 patients and occurred at the margins of EMPD, close to previous biopsy sites. Creating video mosaics (or video mosaicking) seemed to improve the detection of EMPD. Conclusions and Relevance: Handheld reflectance confocal microscopy is a useful auxiliary tool for diagnosing EMPD recurrences and can be used to guide scouting biopsies, thus reducing the number of biopsies needed to render a correct diagnosis. PMID:28492924 DOI:10.1001/jamadermatol.2017.0619