Consistency and distribution of reflectance confocal microscopy features for diagnosis of cutaneous T cell lymphoma.


Abstract
Reflectance confocal microscopy (RCM) represents a noninvasive imaging technique that has previously been used for characterization of mycosis fungoides (MF) in a pilot study. We aimed to test the applicability of RCM for diagnosis and differential diagnosis of MF in a clinical study. A total of 39 test sites of 15 patients with a biopsy-proven diagnosis of either MF, parapsoriasis, Sézary syndrome, or lymphomatoid papulosis were analyzed for presence and absence of RCM features of MF. Cochran and Chi(2) analysis were applied to test the concordance between investigators and the distribution of RCM features, respectively. For selected parameters, the Cochran analysis showed good concordance between investigators. Inter-observer reproducibility was highest for junctional atypical lymphocytes, architectural disarray, and spongiosis. Similarly, Chi(2) analysis demonstrated that selected features were present at particularly high frequency in individual skin diseases, with values ranging from 73% to 100% of all examined cases.