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In vivo reflectance confocal microscopy of oral lichen planus.

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ABSTRACT

BACKGROUND:In vivo reflectance confocal microscopy (RCM) is an imaging technique that can virtually biopsy vital tissues, noninvasively and in real time. It results in horizontal virtual slices at a microscopic resolution that correlates well with conventional histopathology. Despite the widespread use of RCM in dermatology, it is still rarely applied to the study of oral pathologies. The aim of the present work is to describe RCM cellular and architectural findings in oral mucosae affected by oral lichen planus (OLP). **MATERIALS AND METHODS:**A series of conventionally diagnosed OLP lesions underwent RCM imaging with a portable reflectance confocal microscope that could scan from the surface to the submucosa. The confocal findings were collected, described, and compared with the literature. **RESULTS:**A total of 31 oral sites affected by OLP in 12 patients were considered. According to their clinical appearance, 22 lesions showed a reticular-plaque pattern, six lesions were mainly atrophic-erosive, and the remaining three presented a mixed pattern. RCM examination showed hypergranulosis, epithelial disarray, spongiosis, necrotic keratinocytes, epithelial and subepithelial inflammatory cell infiltration, and dilated vessels; all findings were in lichen planus, with differences noted between the "white" and "red" manifestations of this pathology. **CONCLUSIONS:**The use of RCM in routine clinical oral pathology tests is recommended to avoid recurrence of OLP and changes in its responsiveness to therapy, thus limiting the need for biopsy of lesions suspected of tumoral changes. © 2019 The International Society of Dermatology.
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