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Reflectance Confocal Microscopy As A New Tool In The In Vivo Evaluation Of Desquamative Gingivitis: Patterns In Mucous Membrane Pemphigoid, Pemphigus Vulgaris And Oral Lichen Planus.

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ABSTRACT

Background: Desquamative gingivitis refers to a clinical manifestation associated with several mucocutaneous disorders. The most common are mucous membrane pemphigoid, pemphigus vulgaris and lichen planus. Their specific diagnosis is better established by histopathological and immunofluorescence evaluation.

Objective: To examine cases of desquamative gingivitis using reflectance confocal microscopy and compare the findings with those of normal gingiva. Moreover, confocal microscopy findings in desquamative gingivitis were compared to conventional histopathology of the biopsied lesions, in order to establish criteria for this non-invasive diagnostic technique.

Methods: Cases suspected of mucous membrane pemphigoid, pemphigus vulgaris and lichen planus were included, totaling twenty-five cases. Reflectance confocal microscopy was performed the gingival of a healthy person and on gingival lesions. All lesions were biopsied in order to perform a reflectance confocal microscopy- histopathologic correlation.

Results: Reflectance confocal microscopy exam of the gingival lesions suspected of mucous membrane pemphigoid revealed a separation at the level of dermal-epidermal junction, filled with small bright structures interpreted as blood cells. Histopathological and immunofluorescence aspects confirmed the diagnosis. For pemphigus vulgaris, reflectance confocal microscopy aspects were of intraepithelial cleft with round detached cells interpreted as acantholytic keratinocytes, similar to the histopathological features. Hyperkeratosis and spongiosis associated with infiltration of inflammatory cells, recognized as small bright cells intermingling the honeycomb keratinocyte epithelial structure, were seen in lichen planus. Mild bright round structures interpreted as necrotic keratinocytes and mild bright stellate structures, interpreted as melanophages in the dermis were also seen. These features were present in histopathology, confirming the diagnosis of lichen planus.

Conclusion: We propose the use of reflectance confocal microscopy as a useful tool to help distinguish between the three most common causes of desquamative gingivitis.