

Proliferative Verrucous Leukoplakia: An Expert Consensus Guideline for Standardized Assessment and Reporting.

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government work and not under copyright protection in the U.S.; foreign copyright protection may

apply 2021 The many diverse terms used to describe the wide spectrum of changes seen in proliferative verrucous leukoplakia (PVL) have resulted in disparate clinical management. The objective of this study was to produce an expert consensus guideline for standardized assessment and reporting by pathologists diagnosing PVL related lesions. 299 biopsies from 84 PVL patients from six institutions were selected from patients who had multifocal oral leukoplakic lesions identified over several years (a minimum follow-up period of 36 months). The lesions demonstrated the spectrum of histologic features described in PVL, and in some cases, patients developed oral cavity squamous cell carcinoma (SCC). An expert working group of oral and maxillofacial and head and neck pathologists reviewed microscopic features in a rigorous fashion, in combination with review of clinical photographs when available. The working group then selected 43 single slide biopsy cases for whole slide digital imaging (WSI) review by members of the consensus conference. The digital images were then reviewed in two surveys separated by a washout period of at least 90 days. Five non-PVL histologic mimics were included as controls. Cases were re-evaluated during a consensus conference with 19 members reporting on the cases. The best inter-observer diagnostic agreement relative to PVL lesions were classified as "corrugated ortho(para)hyperkeratotic lesion, not reactive" and "SCC" (chi-square $p = 0.015$). There was less than moderate agreement ($\kappa < 0.60$) for lesions in the "Bulky hyperkeratotic epithelial proliferation, not reactive" category. There was $\geq$ moderate agreement (> 0.41 kappa) for 35 of 48 cases. This expert consensus guideline has been developed with support and endorsement from the leadership of the American Academy of Oral and Maxillofacial Pathology and the North American Society of Head and Neck Pathologists to recommend the use of standardized histopathologic criteria and descriptive terminology to indicate three categories of lesions within PVL: (1) "corrugated ortho(para)hyperkeratotic lesion, not reactive;" (2) "bulky hyperkeratotic epithelial proliferation, not reactive;" and (3) "suspicious for," or "squamous cell carcinoma." Classification of PVL lesions based on a combination of clinical findings and these histologic descriptive categories is encouraged in order to standardize reporting, aid in future research and potentially guide clinical management.