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Risk co-factors inducing malignant transformation of oral lichen planus: A literature review of clinical studies

Oral lichen planus (OLP) is an autoimmune chronic inflammatory disease. The potential risk of malignant transformation in OLP remains controversial. The aim of the present study was to review original clinical studies published in indexed databases, which assessed the potential risk cofactors which were implicated in the malignant transformation of oral lichen planus. We focused our search to include most of the studies that reported malignant transformation of oral lichen planus using different combinations of the following key indexing terms: oral lichen planus, malignant transformation, smoking, alcohol, chronic inflammation, candida, human papillomavirus (HPV), hepatitis C virus (HCV) and immunosuppression. The animal studies were excluded from our study. Despite a dearth of studies on this topic we have identified consumption of tobacco and/or alcohol, the presence of erosive and/or atrophic areas, infection with candida, HCV, HPV, and immunosuppression as significant cofactors. Patients with OLP with these risk co-factors are at risk of malignant transformation should, therefore be followed up for an extensive period or even for life.

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<u>Influence of retreatment in the formation of dentinal microcracks in mandibular molars filled with a calcium silicate</u> based sealer

Introduction: In endodontically treated teeth, dentinal defects such as microcracks can progress to a vertical root fracture and lead to tooth loss.

Objective: The present study aimed to evaluate, by micro-computed tomography analysis, the formation of dentinal microcracks during filling removal in endodontic retreatment of root canals filled with gutta-percha and Total Fill BC bioceramic sealer.

Methods: Twenty mesial roots of mandibular molars were instrumented and obturated with gutta-percha and Total Fill BC sealer and then the filling material was removed with rotary Protaper Retreatment files. The specimens were scanned before instrumentation, after filling and after retreatment. The transversal images obtained after filling were compared with the images obtained after removal of the filling material. A descriptive statistical analysis was performed.

Results: Among the 24.444 cross-sections analyzed, 5.67% presented some type of dentinal defect, with 0.51% in the initial images, 2.58% in the post-filling images and 2.58% in the post-retreatment images. All the dentinal defects identified in the images obtained after the retreatment were already present in the corresponding images after the filling. New dentinal microcracks were not observed after removal of the filling material.

Conclusion: Retreatment of mesial roots of mandibular molars filled with a silicate-based root canal filling material do not influence the formation of dentinal microcracks.