



0064

Role of EBV in the Pathogenesis of Oral Lichen Planus

S. C. Ozdemir^{1,2}, B. P. Akmansoy², J. Kakar¹

¹Faculty of dentistry, Riga Stradins University, Riga, Latvia, ²Faculty of dentistry, Marmara University, Istanbul, Turkey

Objectives Oral lichen planus (OLP) is a common chronic inflammatory non infectious disease with an uncertain etiology, predominantly affecting 1-2% of the adult population, particularly women over 40 years old indicating a higher prevalence in females. Rates of malignant transformation of OLP range from 1 -5% over a 10-year period. Epstein-Barr Virus (EBV), a prevalent herpes virus, affects over 90% of individuals worldwide before the age of 20. This study aims to elucidate the potential role of EBV in the pathogenesis of OLP and its potential diagnostic and therapeutic implications.

Methods This review includes observational studies investigating the relationship between EBV and OLP, involving patients with OLP and control groups. Online databases (PubMed, Scopus, Research gate, Science direct and Google Scholar) were searched from date of inception till date. Eligible studies confirmed OLP diagnosis histopathologically and were available in English. Studies focusing solely on skin lichen planus involvement with viruses were excluded.

Results Analysis of twelve studies (out of total 25 studies) revealed varying rates of EBV positivity among OLP patients and healthy controls. EBV positivity in 969 OLP cases ranged from 6% to 82%, totaling 379 cases (average: 41.3%). Among healthy individuals, EBV positivity ranged from 0% to 21.1%, with 77 cases (average: 12.5%). These findings suggest a potential association between EBV and OLP, necessitating further investigation into EBV's role in OLP etiology and pathogenesis.

Conclusions In conclusion, this review highlights the potential association between Epstein-Barr Virus and oral lichen planus. Rates of EBV positivity among OLP cases varied widely but EBV positivity was consistently higher among OLP patients than in the control groups, suggesting a potential link between EBV and OLP pathogenesis. Further research is warranted to elucidate the role of EBV in OLP development, which may have implications for diagnostic and therapeutic approaches.