

Comparison of Ki-67 Expression in Leukoplakia and Squamous Cell Carcinoma-A Retrospective Study

Pankaj Rathod¹, Abhilasha Singh², Ravleen Nagi³

¹Department of Oral and Maxillofacial Surgery, ²Department of Periodontology, Hazaribagh College of Dental Sciences and Hospital, Morangi Hazaribagh (Jharkhand), ³Department of Oral Medicine and Radiology, Saveetha Dental College and Hospitals Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai (Tamil Nadu)

ABSTRACT:

Background: Oral malignancy is the most common malignancy worldwide. In India, approximately 77000 new cases are diagnosed and 52000 deaths are reported annually.

Absolutely, understanding the molecular pathogenesis of conditions like oral leukoplakia can indeed be a game-changer in terms of early diagnosis and prognosis. Cell proliferation, which is tightly regulated in healthy tissues, can go haywire in cancer, leading to uncontrolled growth and tumor formation. By studying the molecular mechanisms underlying this dysregulation, researchers can identify potential biomarkers for early detection and develop targeted therapies to intervene in the progression of the disease. In the present study Ki-67 expression was compared between lesions of leukoplakia and Oral squamous cell carcinoma. Grades of epithelial dysplasia and Oral squamous cell carcinoma were also evaluated.

Materials & Methods: This retrospective study conducted at our institution, represents a significant effort to understand the proliferative activity in oral lesions. With a total sample size of 135, including 72 oral leukoplakia samples, 50 oral squamous cell carcinoma samples, and 13 normal mucosal samples, it provides a comprehensive view of Ki-67 expression in different oral conditions.

Results: The finding of over expression of Ki-67 with increasing grades of Oral Epithelial Dysplasia and in Oral Squamous Cell Carcinoma compared to normal mucosa was significant (p-value<0.05) and aligns with the known biology of these conditions.

Conclusion: The conclusion drawn from our study suggests that Ki-67 expression could indeed serve as a reliable marker for predicting the future outcome of Oral Epithelial Dysplasia and Oral Squamous Cell Carcinoma.

KEYWORDS: Ki-67, epithelial dysplasia, carcinoma, leukoplakia