

## **THE VALUE OF SUB-EPITHELIAL ENDOTHELIAL CELL DENSITY AS A PROGNOSTIC MARKER IN ORAL LEUKOPLAKIAS**

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Recent literature suggests that tumour-induced angiogenesis is an important step in the evolution of malignant tumours. Primary objective of this study is therefore, to find out, whether the vascular density in the sub-epithelial connective tissues of oral leukoplakias could be used to predict the risk of malignant transformation. Vascularity of 10 leukoplakias that eventually transformed into squamous cell carcinomas and, 12 leukoplakias that did not change for a period of 5 years were studied. The vascular density of the connective tissue immediately below the epithelium was assessed histologically. Sections were stained immunohistochemically using a probe for factor VIII. Numbers of endothelial cells in 3 randomly selected areas (each measuring  $0.0625\text{mm}^2$ ) of each section were counted. The density of endothelial cells was calculated and expressed as number of cells per  $\text{mm}^2$ .

Results showed a higher endothelial cell density in those leukoplakias that subsequently transformed into carcinomas, compared to those did not undergo malignant transformation. Student t-test was carried out and the difference in the endothelial cell density was significant at 0.05 level ( $p=0.03$ ). This study suggests that the endothelial cell density in the connective tissue immediately below the epithelium may have a value in predicting the malignant transformation potential of oral leukoplakias