

Expression of cell cycle associated proteins p53, pRb, p16, p27 and correlation with survival: A comparative study on Squamous cell carcinoma (SCC) and Verrucous carcinoma (VC) of oral mucosa

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OBJECTIVE: To evaluate immunoexpression of cell-cycle regulatory proteins(CCRPs)- p53, pRb, p16, p27 in SCC and VC, as differences in molecular pathogenesis between the two are not well-characterized.

STUDY DESIGN:Immunohistochemistry for p53, pRb, p16, p27 was performed in 60 cases of SCC and 31 cases of VC.

RESULTS: Majority of SCCs were in Stage III&IV (63%), while VCs were in Stage I&II (84%). p53 immunopositivity was more in SCC (65%) than in VC (23%) ($p<0.001$). No significant difference was seen in pRb, p16, p27 expression. Disease-Free Survival(DFS) at 1year for SCC was 57% while it was 80% for VC ($p=0.02$). DFS of SCC correlated with nodal status and stage; CCRP expression had no association with DFS.

CONCLUSIONS: p53 immunoexpression differs in SCC and VC, suggesting different pathogenesis, and it may be used as an adjunct to morphology to differentiate between the two. Expression of CCRPs does not influence survival in SCC.