

# Proliferative and apoptotic activity at the tumour invasive front in oral squamous cell carcinoma

Type: Meeting Abstract

Content:

**Introduction:** the tumour invasive front of squamous cell carcinoma (OSCC) has long been recognized as an important area which harbour prognostic information. The aim of the present study was to describe the expression of K1-67, MDM2 and Bcl-2 at the tumour invasive front in the buccal mucosa and also to investigate whether there is any association between the expression of K1-67, MDM2 and Bcl-2 with the certain sociodemographic characteristics, clinical and histopathological parameters. **Materials and Methods:** The sample of this study consisted of 31 biopsy cases of OSCC from the buccal mucosa. Immunohistochemistry was used with specific antibodies to K1-67, MDM2 and Bcl-2. Evaluation of the nuclear immunoreactivity of all K1-67, MDM2 and Bcl-2 was done at the tumour invasive front (3-6 cell layers at the tumour advancing front). **Results:** The expression of K1-67, MDM2 and Bcl-2 were detected in 90.3% (28), 64.5% (20) and 16.1% (5) of the cases respectively. The distribution of K1-67 and Bcl-2 immunoreactivity was observed to be quite similar where immunoreactivity was mainly at peripheral invading margin of tumour cell islands with decreasing immunoreactivity towards the centre. The distribution of MDM2 immunoreactivity was unlike that K1-67 and Bcl-2 where the immunoreactivity was observed mainly at the suprabasal region. The present study found significant association between MDM2 expression with gender and Broder's tumour grading. Significant association was also observed between combined K1-67/MDM2 expression with both gender and Broder's tumour grading. **Conclusion:** The present study appeared to suggest no significant association between K1-67, MDM2 and Bcl-2 at the tumour invasive front. No association was also found between k1-67 expression as a proliferative marker and both MDM2 and Bcl-2 as apoptotic markers. However, it appeared to support the observation from the previous study that an increase carcinoma proliferation rate would also be accompanied by an increase in apoptosis.

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