Proliferating cell nuclear antigen (PCNA) expression in oral squamous cell carcinoma - an aid to conventional histological grading?

Type: Article.

Abstract:

Proliferating cell nuclear antigen (PCNA) is a well known marker for cell proliferation. It tends to accumulate in the late G1 and S-phase of the cell cycle. A monoclonal antibody (MoAb) against PCNA is now available and it can react with paraffin-embedded specimens. In the present study, PCNA immunohistochemical staining of 36 cases of oral cancer specimens obtained from surgery were investigated. The results showed differing nuclear staining patterns for PCNA in normal, hyperplastic and dysplastic epithelium, early cancer and 3 levels of differentiation for squamous cell carcinoma of the oral cavity. It appears that PCNA can be a useful marker in delineating normal epithelium and hyperplastic epithelium from dysplasia in the oral cavity. The use of PCNA staining may further emphasize the conventional histopathological grading of well-differentiated, moderately-differentiated and poorly-differentiated oral squamous cell carcinoma but is still dependent on basic criteria as observed without immunostaining. PCNA expression for all grades of squamous cell carcinoma are present at the deep, infiltrative margins.

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