IMMUNOHISTOCHEMICAL EXPRESSION OF β-CATENIN IN SELECTED BENIGN AND MALIGNANT SALIVARY GLAND TUMOURS

by

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Abstract:

Cell adhesion is a vital process, essential for the establishment and maintenance of tissue architecture and differentiation. β-Catenin plays a central role in the E- cadherin /catenin cell-cell adhesion complex, and also is involved in cellular signaling pathways. Alteration in the catenin expression has been associated with loss of differentiation and acquisition of an invasive phenotype in a range of tumours. However, very few studies, on the role of cell adhesion molecules and beta catenin expression in salivary gland tumours exist. The expression of β-catenin was evaluated in 13 cases of benign and 32 cases of malignant salivary gland tumours by immunohistochemistry. Among the benign salivary gland tumours, Pleomorphic adenoma showed 100% positivity, 1of the 2 cases of myoepithelioma and 1 case of canalicular adenoma studied, showed beta catenin expression. Malignant salivary gland tumours showed 62.5% positivity, wherein Adenoid Cystic Carcinoma showed 60%, Mucoepidermoid carcinoma showed 80%, and adenocarcinoma showed the least positivity (33.33%) and 1 case of Carcinoma ex Pleomorphic Adenoma included in the study also showed beta catenin expression. The staining intensity was more in benign salivary gland tumours, and cytoplasmic localization and reduced membranous expression was seen in the malignant salivary gland tumours. A reduced expression of beta catenin in malignant salivary gland tumours when compared to the benign salivary gland tumours could possibly reflect the biologic behavior of these tumours.

Key words: (β-catenin; immunohistochemistry; pleomorphic adenoma; adenoid cystic carcinoma; mucoepidermoid carcinoma; salivary gland tumours)