

ABSTRACT

Introduction: Immunohistochemistry has been used as an aid in the histological diagnosis of salivary gland neoplasms as they often show overlapping histomorphological growth patterns.

Aim: To investigate the expression of SMA, p63, MNF-116 and S100 in salivary gland tumours with biphasic ductules in order to ascertain whether the biphasic ductules of these tumours show significant immunophenotypic differences that could aid in their distinction.

Materials and Methods: Formalin-fixed paraffin embedded tissue sections of pleomorphic adenoma (n=10), adenoid cystic carcinoma (n=9) and epi-myoeipithelial carcinoma (n=8) were stained with each of the above antisera using standardised automated Dako immunohistochemical techniques. The immunoreactivity of each marker was evaluated semi-quantitatively with respect to frequency of expression in the inner epithelial and outer myoeipithelial cell layers of the biphasic ductules in all 3 tumours.

Results: There was no significant difference in the frequency of expression of the 4 markers in the luminal cells of the biphasic ductules in pleomorphic adenoma, adenoid cystic carcinoma and epi-myoeipithelial carcinoma. All 27 tumours showed positive expression for MNF-116 and S100 in the luminal cells, while SMA and p63 were negative in the luminal cells. The immunophenotype of the abluminal cells in pleomorphic adenoma and adenoid cystic carcinoma was characterised by positive expression for SMA and p63 in adenoid cystic carcinoma, and for all 4 markers in pleomorphic adenoma, while in epi-myoeipithelial carcinoma the abluminal cells were constantly negative for MNF-116 (8/8).

Conclusion: The study findings suggest that the biphasic ductules of epi-myoeipithelial carcinoma may be distinguished from those in pleomorphic adenoma and adenoid cystic carcinoma by negative staining for MNF-116 in the abluminal cells of epi-myoeipithelial carcinoma.