

SEARCHING FOR MAMMARY ANALOGUE SECRETORY CARCINOMA OF THE SALIVARY GLANDS FOR THE FIRST TIME IN IRAN

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Background: Mammary analogue secretory carcinoma (MASC) is a recently described entity in salivary gland tumors with morphologic and genetic similarity to secretory carcinoma of the breast. This is the first series of MASCs with clinical/pathological correlation and follow up data identified in Iran. **Methods:** Among more than 150 salivary gland neoplasms including acinic cell carcinomas, cystadenocarcinomas and adenocarcinoma not otherwise specified (NOS) in two largest pathology centers in Iran, 37 cases were selected with secretory features, microcystic and papillary-cystic growth patterns resembling secretory carcinoma of breast. S100 and mammaglobin proteins were evaluated by immunohistochemistry in all 37 cases and the comparison group. Detection of ETV6-NTRK3 gene translocation using RT-PCR and FISH analysis was conducted for tumors with significant co-expression of S100 and mammaglobin. **Results:** 10 cases of MASC (confirmed by molecular study) were positive for both mammaglobin and S100. All were derived from parotid gland except two from minor salivary glands in the upper lip. Two were high grade MASCs with metastasis and death. Except for these high grade cases, the overall prognosis is good. **Conclusion:** We present the newly cases of MASC according to their unique histologic, immunohistochemical and molecular features. These observations will help further characterization of this novel entity.

COMPARATIVE EVALUATION OF ANGIOGENESIS IN BENIGN AND MALIGNANT SALIVARY GLAND TUMORS

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Objectives: Neoplastic tissues require oxygen and nutrients for survival and growth. Neoangiogenesis seems to play a crucial role in progression of vast majority of tumors; but there is few studies investigating its role in biologic behavior of benign and malignant salivary gland tumors. CD105 expression has greater accuracy for detecting new vessels formation comparing with other panendothelial molecules. The aim of this study was to assess and compare immunohistochemical expression of CD105 in MEC (Mucoepidermoid Carcinoma), AdCC (Adenoid Cystic Carcinoma) and PA (Pleomorphic Adenoma). **Methods:** Immunohistochemical expression of CD105 was assessed in twenty PAs, twenty AdCCs, twenty MECs and ten cases of normal salivary gland tissue by measuring intratumoral mean vascular density (MVD) quantitatively. Difference between MVD in groups was analyzed statistically using Mann-Whitney U test and Kruskal-Wallis test. One-way analysis of variance (ANOVA) using post Hoc Tukey test was also carried out. P-values less than 0.05 were considered statistically significant. **Results:** CD105 positive vessels were rare in normal salivary gland tissue. Statistically significant differences in MVD were observed between normal salivary gland tissue and AdCC and also MEC ($P < 0.017$, $P < 0.000$ respectively). There was statistically significant difference in MVD between PA and AdCC and also MEC. ($P < 0.018$, $P < 0.000$ respectively). MVD was higher in MEC in compare with AdCC and it was statistically significant ($P < 0.002$). **Conclusion:** The results of the current study demonstrated higher neoangiogenesis in AdCC and MEC, which suggests a possible role for this phenomenon in aggressive behavior of these malignant salivary gland tumors.