Abstract

Background: Relatively little is known concerning the immunohistochemical marking of sinonasal adenocarcinoma (SNA). The most clinically problematic tumors are those that seem histologically identical to colonic adenocarcinoma, a neoplasm that may metastasize to the sinonasal region. To determine whether differentiated immunohistochemical expression of keratins could differentiate primary from metastatic tumors and to understand the biology of these tumors, differentiated keratin and oncoprotein expression was investigated. Methods: Eleven patients with sinonasal adenocarcinoma were investigated for expression of cytokeratins 7 and 20 (CK7, CK20), AE 1/3, CAM 5.2, smooth muscle-specific actin, muscle-specific actin, desmin, S-100, carcinoembryonic antigen (CEA), p53, and HER-2/neu.Results: All sinonasal adenocarcinomas of intestinal type were cytokeratin 7 positive. None of the tumors showed myoepithelial differentiation. Strong HER-2/neu staining was seen in some tumors. Conclusions: Strong HER-2/neu staining in some cases suggests this oncogene may be involved in the genesis of SNA. Immunohistochemical staining with cytokeratin 7 may be potentially useful in differentiating primary from metastatic disease in sinonasal adenocarcinomas of the intestinal subtype