Adenoid Cystic Adenocarcinoma of a Minor Salivary Gland—An Under-Estimated Risk?

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A 39-year-old male nonsmoker applying for life insurance had a 1.0 cm malignant tumor removed from a right-sided minor salivary gland of the buccal mucosa one year prior to application. Review of the brief path report indicates the tumor was an adenoid cystic carcinoma, found to be within 0.5 mm of the surgical margins. No histologic grade was indicated. The applicant was determined to be stage I, with no palpable lymph nodes and a normal chest x-ray. No post-operative radiation or chemotherapy was offered and he received an offer for insurance with a small flat extra for an additional 3 years.

Adenoid cystic carcinoma is an indolent but unpredictable tumor. It is the second most common malignancy to appear in salivary glands, and the most common malignancy found in minor salivary glands. It has a tendency to become aggressive and to recur, sometimes many years after the original tumor. Because these tumors frequently involve neurologic invasion, post-operative radiation is often recommended, even for grade I tumors. Radiation therapy is also commonly used when the tumor involves, or is very near, the surgical margins as in this case.

Tumors occur less often in the minor salivary glands generally. But when they do occur, they are more frequently malignant than in other salivary gland locations. In adults, the smaller the salivary gland, the higher the likelihood of malignancy when a neoplasm is found. For example, 15% to 25% of parotid tumors, 37% to 43% of submandibular gland tumors, and 80% of minor salivary gland tumors are malignant.

Five- and 10-year survival rates for adenoid cystic carcinoma range from 50% to 86% and 35% to 75%, respectively. One large review found an overall mean survival of 99 months. Long-term survival in this disease has been elusive for a couple of reasons. To begin with, occult lymph node metastases often occur. Secondly, at the time of diagnosis, roughly 40% (or more, in some studies) of adenoid cystic carcinoma cases have distant me-
Adenoid cystic carcinoma. A low-power photomicrograph of an adenoid cystic carcinoma. The cribriform spaces filled with mucous or hyaline material (left panel, arrow) are the most characteristic feature of this tumor. These tumors have a tendency to invade bone (right panel, arrow). From: Haines GK. Pathology of head and neck cancer. In: UpToDate, Rose BD, ed. Wellesley, Mass: UpToDate; 2004. Copyright 2004 UpToDate, Inc. For more information visit www.uptodate.com.

Although this applicant is a nonsmoker, that may not affect his disease-specific survival. Unlike other head and neck cancers, smoking and alcohol have not been strongly associated in the development of adenoid cystic carcinoma. Because this applicant did not receive post-operative radiation and because of the potentially aggressive and recurrent nature of these tumors, it is questionable whether a small flat extra for 3 years will adequately cover the mortality risk in this case.

REFERENCES