Polymorphous Low-Grade Adenocarcinoma (PLGA)

Polymorphous low-grade adenocarcinoma is a malignant tumor that is predominately restricted to minor salivary glands. The tumors are distinguished by bland, uniform nuclear features; varied but distinctive architecture; invasive growth; and perineural infiltration (Ellis and Auclair 1996). PLGAs have been reported to represent ~11% of all tumors of salivary glands and ~26% of malignant neoplasms. PLGAs characteristically emerge as solid, nontender swellings of the mucosa of the hard and soft palates, buccal mucosa, or upper lip. Soreness, hemorrhage, telangiectasia, or ulceration have been associated with these lesions (Ellis and Auclair 1996). These tumors are slowly progressive salivary gland neoplasms with an apparent survival approaching 80% at 25 years (Evans and Luna 2000). Noteworthy is that since some of these tumors may behave capriciously, the qualifying term "low-grade" may be deceptive and the term "polymorphous adenocarcinoma" is preferable (Speight and Barrett 2002).

The average age of patients has been 59 years, with the vast majority of cases occurring between the ages of 50 and 79 years. The gender predisposition is in favor of females in a ratio of ~2:1. Among minor gland tumors, PLGA is two times as frequent as adenoid cystic carcinoma (Ellis and Auclair 1996). The AFIP series indicates that >60% of PLGAs occur in the mucosa of either the soft or hard palates, the next most frequent sites being buccal mucosa (16%) and the upper lip (12%).

Adenocarcinoma, NOS (Not Otherwise Specified)

Adenocarcinoma, NOS demonstrates glandular or ductal differentiation but does not have any of the distinct morphologic features that typify the other, more explicit carcinoma types. The diagnosis of adenocarcinoma, NOS is fundamentally one of elimination. Adenocarcinoma, NOS has been suggested to be only second to mucoepidermoid carcinoma in frequency among malignant salivary gland neoplasms (Ellis and Auclair 1996). However, reports have shown a varied incidence from 4% to 10% (Speight and Barrett 2002). The AFIP reports the mean patient age of 58 years with roughly 40% and 60% of tumors occurring in the major and minor salivary glands, correspondingly, with 90% of tumors occurring in the parotid gland (Ellis and Auclair 1996). Adenocarcinoma, NOS is graded according to the degree of differentiation as low-grade, intermediate-grade, and high-grade tumors (Ellis and Auclair 1996; Speight and Barrett 2002). Some reports have indicated that survival is more superior for patients with tumors of the oral cavity than for those with tumors of the major glands (Ellis and Auclair 1996; Matsuba et al. 1988).

Rare Adenocarcinomas

Basal Cell Adenocarcinoma

Basal cell adenocarcinoma, also known as basaloid salivary carcinoma, carcinoma ex monomorphic adenoma, malignant basal cell adenoma, malignant basal cell tumor, and basal cell carcinoma, is an epithelial neoplasm that is cytologically similar to basal cell adenoma but is infiltrative and has a small potential for metastasis (Ellis and Auclair 1996). In AFIP case files spanning almost 11 years, basal cell carcinoma comprised 1.6% of all salivary gland neoplasms and 2.9% of salivary gland malignancies (Ellis and Auclair 1996). Nearly 90% of tumors occurred in the parotid gland (Muller and Barnes 1996). The average age of patients is reported to be 60 years (Ellis and Auclair 1996).

Similar to most salivary gland neoplasms, swelling is typically the only sign or symptom experienced (Muller and Barnes 1996). A sudden increase in size may occur in a few patients (Ellis and Auclair 1996). Basal cell carcinomas are low-grade carcinomas that are infiltrative, locally destructive, and tend to recur. They occasionally metastasize. In a retrospective series of 29 cases, there were recurrences in 7 and metastases in 3 (Muller and Barnes 1996). In another retrospective review of 72 cases, 37% involved local recurrences (Ellis and Auclair 1996). The overall prognosis for patients with this tumor is good (Ellis and Auclair 1996; Muller and Barnes 1996).

Clear Cell Carcinoma

Clear cell carcinoma, also known as clear cell adenocarcinoma, is a very rare, malignant epithelial neoplasm composed of a monomorphous population of cells that have optically clear cytoplasm with standard hematoxylin and eosin stains and that lack features of other specific neoplasms. Because of inconsistencies in the methods of reporting salivary gland neoplasms, meaningful