

asymptomatic parotid mass of only a few months' duration (Ellis and Auclair 1996; Perez-Ordóñez et al. 1998). These are high-grade neoplasms with an estimated survival rate at 2 and 5 years of 70% and 46%, respectively (Gnepp, Corio, and Brannon 1986).

Large Cell Undifferentiated Carcinoma

Large cell undifferentiated carcinoma is a malignant neoplasm that lacks any features of differentiation. However, in some instances poorly formed duct-like structures have been described. Rapid growth of a parotid swelling is a common clinical presentation (Gaughan, Olsen, and Lewis 1992). These tumors are high-grade lesions that commonly metastasize. Tumors that are T3 or greater have been noted to have a dire prognosis (Batsakis and Luna 1991). These neoplasms make up only ~1% of all epithelial salivary gland tumors, with the vast majority of cases occurring in the parotid glands of elderly patients (Batsakis and Luna 1991; Ellis and Auclair 1996; Hui et al. 1990).

Lymphoepithelial Carcinoma

Lymphoepithelial carcinoma, which is also known as undifferentiated carcinoma with lymphoid stroma and carcinoma ex-lymphoepithelial lesion, is an undifferentiated tumor coupled with a dense lymphoid stroma; notably these lesions have been linked with Epstein-Barr virus infection (Leung et al. 1995). Moreover, an unusually high incidence of these tumors has been identified most often in the parotid glands and to a lesser extent in the submandibular gland of Eskimo and Inuit populations (Bosch, Kudryk, and Johnson 1988; Ellis and Auclair 1996). Pain is a common presenting symptom; however, in 20% of patients facial nerve involvement has been recorded (Borg et al. 1993). Cervical lymph node metastasis has been a common finding at initial presentation, and 20% of patients develop distant metastases within a 3-year period (Borg et al. 1993; Bosch, Kudryk, and Johnson 1988).

Myoepithelial Carcinoma

Myoepithelial carcinoma is a very rare, malignant salivary gland neoplasm that almost entirely manifests myoepithelial differentiation. This tumor represents the malignant complement of benign myoepithelioma (Ellis and Auclair 1996). The

majority of patients, mean age 55 years, present with a painless mass generally within the parotid gland (66%) (Ellis and Auclair 1996). The tumors are often intermediate-grade or high-grade carcinomas (Ellis and Auclair 1996; Savera et al. 2000). Interestingly, the histological grade of these neoplasms does not appear to correlate in a good way with clinical behavior, in that some tumors manifesting with a low-grade histologic pattern may behave in an aggressive manner (Savera et al. 2000).

Adenosquamous Carcinoma

Adenosquamous carcinoma is an extremely uncommon malignant neoplasm that emerges concurrently from surface mucosa and salivary gland ductal epithelium. These tumors possess histopathological characteristics of squamous cell carcinoma and of adenocarcinoma. Analysis of the few cases reported seems to indicate that this is an extremely aggressive malignancy with a dismal prognosis (Ellis and Auclair 1996).

Non-epithelial Neoplasms

Lymphomas and Benign Lymphoepithelial Lesion

Lymphomas of the major salivary glands are typically non-Hodgkin's lymphomas. AFIP reviews have indicated that non-Hodgkin's lymphoma constitutes 16.3% of all malignant tumors that arise in the major salivary glands. Moreover, non-Hodgkin's lymphoma of the parotid gland comprises 80% of all cases (Ellis and Auclair 1996).

Patients with benign lymphoepithelial lesion and with Sjögren's syndrome are considered at an increased risk for development of non-Hodgkin's lymphoma (Abbondanzo 2001; Ihrler et al. 2000). Benign lymphoepithelial lesion is clinically distinguished by bilateral enlargement of the salivary and lacrimal glands. In affected glands the lesion is composed of distinctive myoepithelial islands bounded by lymphocytes, which possess germinal centers (Ellis and Auclair 1996). Immunophenotypically and genotypically, the lymphocytic component consists of polyclonal B-lymphocytes and T-lymphocytes. The B-cell lymphocytic component has been noted to result in clonal expansion and progress to a non-Hodgkin's lymphoma. The majority of the non-Hodgkin's lymphomas arising within benign lymphoepithelial lesions are mar-