



Figure 16-15 Pleomorphic adenoma. **A**, Slowly enlarging neoplasm in the parotid gland of many years duration. **B**, The bisected, sharply circumscribed, yellow-white tumor can be seen surrounded by normal salivary gland tissue.

ex pleomorphic adenoma, which requires that recognizable traces of pleomorphic adenoma be found. Regrettably, these cancers, when they appear, are among the most aggressive of all salivary gland malignant neoplasms, producing mortality rates of 30% to 50% at 5 years.

Warthin Tumor (Papillary Cystadenoma Lymphomatosum)

This curious benign neoplasm with its intimidating histologic name is the second most common salivary gland neoplasm. It arises almost *exclusively in the parotid gland* (the only tumor virtually restricted to the parotid) and occurs more commonly in males than in females, usually in the fifth to seventh decades of life. About 10% are multifocal and 10% bilateral. Smokers have eight times the risk of nonsmokers for developing these tumors.

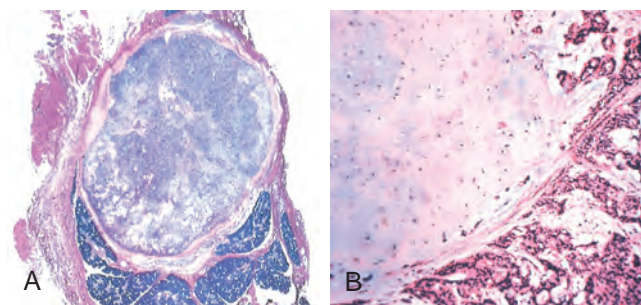


Figure 16-16 Pleomorphic adenoma. **A**, Low-power view showing a well-demarcated tumor with adjacent normal salivary gland parenchyma. **B**, High-power view showing epithelial cells and myoepithelial cells within a chondroid matrix material.

MORPHOLOGY

Most Warthin tumors are round to oval encapsulated masses, 2 to 5 cm in diameter, usually arising in the superficial parotid gland, where they are readily palpable. Transection reveals a pale gray surface punctuated by narrow cystic or cleftlike spaces filled with mucinous or serous secretions. On microscopic examination these spaces are lined by a double layer of neoplastic epithelial cells resting on a dense lymphoid stroma sometimes bearing germinal centers (Fig. 16-17). The spaces are frequently narrowed by polypoid projections of the lymphoepithelial elements. The double layer of lining cells is distinctive; the upper layer consists of palisading columnar cells with abundant, finely granular, eosinophilic cytoplasm, while the lower layer is comprised of cuboidal to polygonal cells. The granular appearance of the cytoplasm of the upper layer of cells is due to the presence of numerous mitochondria, a feature referred to as “oncocytic”. Secretory cells are dispersed in the columnar cell layer, accounting for the secretions within the dilated lumens. On occasion, there are foci of squamous metaplasia.

The histogenesis of these tumors has long been debated. The epithelial component of the tumor appears to be neoplastic, and presumably these cells make factors that serve as attractants for the lymphoid cells, which are believed to be reactive. Rarely, Warthin tumors have arisen within cervical lymph nodes, a finding that should not be mistaken for metastases. These neoplasms are benign, with recurrence rates of only 2% after resection.

Mucoepidermoid Carcinoma

These neoplasms are composed of variable mixtures of squamous cells, mucus-secreting cells, and intermediate