Chapter 8
Tumors of the Parotid Gland

Outline

Introduction

This chapter will discuss the diagnosis and management of parotid tumors arising from epithelial cells, that is, salivary derived parotid tumors. Non-epithelial tumors will be discussed in chapter 11. Although the commonest tumor is the benign pleomorphic adenoma, there is currently much controversy in the literature over the surgical management of this tumor regarding the place of extracapsular dissection vs. the traditional parotidectomy, which will be discussed at length. Changing approaches to neck dissection and adjuvant radiotherapy in malignant parotid tumors will also be highlighted.

Etiology and Epidemiology

The etiology of salivary gland tumors is largely unknown. There is an increase in salivary tumors from exposure to radiation documented from Hiroshima and Nagasaki (Saku, Hayashi, Takahara et al. 1997). An increase in poorly differentiated carcinoma of the parotid, which may be associated with Epstein-Barr virus, is reported in Inuit people. It is thought that Warthin's tumors arise from salivary duct remnants enclaved in lymph nodes during embryologic development and that irritation from tobacco smoke may cause these ducts to proliferate (Lamelas, Terry, and Alfonso 1987). At the present time data does not show any connection between cell phone use and increased risk of parotid tumors (Lonn, Alholm, and Christensen et al. 2006). There is a reported increase in other solid tumors, particularly breast cancer, in conjunction with salivary malignancies (In der Maur, Klokman, and van Leeuwen et al. 2005).

Salivary gland tumors are rare: 1.5–2 per 100,000 in the United States, and they comprise approximately 3% of head and neck malignancies. Eighty percent of all salivary tumors are located in the parotid gland and of these tumors approximately 80% will be benign. The "rule of 80s" also states that 80% of parotid tumors are located in the superficial lobe and that 80% of these will be pleomorphic adenomas (PAs). This chapter will discuss the epithelial derived salivary tumors of the parotid.

Diagnosis

The diagnosis of a tumor of the parotid gland will be dependent upon the history, clinical examination, imaging, and fine needle aspiration biopsy (FNAB). In most cases the history will be of a painless slow-growing lump that the patient had been aware of for some months or even years, and that was noticed initially when shaving, washing, or applying makeup. Occasionally the patient will report a rapidly growing mass, but this is not always a malignancy, as a long-standing retromandibular tumor that can no longer be accommodated in this space may have "popped out" and become prominent. Pain in a parotid mass is usually an ominous sign and can be an indication