



**Figure 8.3e.** Histopathology confirms diagnosis of pleomorphic adenoma. Note marked pseudocapsule of collagenous tissue. The patient is disease free 10+ years post-surgery.

adenoma (53%) and intra-parotid lymph node (36%). Malignant salivary gland tumors with the highest false negative rate were acinic cell carcinoma (49%), low-grade mucoepidermoid carcinoma (43%), and adenoid cystic carcinoma (33%). It was felt the data confirmed the difficulty inherent in FNAB of salivary glands (Hughes, Volk, and Wilbur 2005). A paper from the Memorial Sloan Kettering Cancer Center concluded that an FNAB result positive for a malignant neoplastic process is generally predictive of the final histologic diagnosis, whereas the predictive value of a negative FNAB is low (Cohen, Patel, and Lin et al. 2004).

## Surgical Management

The basic surgical procedure is the superficial parotidectomy in which the superficial lobe of the parotid is removed, preserving the facial nerve unless it is directly infiltrated by the tumor. The author's usual incision is the modified Blair or "lazy S." The skin flap is elevated in a plane through the subcutaneous fat superficial to the parotid capsule (Figure 8.4). Recently the use of a face lift incision has been advocated to improve esthetic results of the scar (Honig 2005; Menin-gaud, Bertolus, and Bertrand 2006). These authors have also combined face lift incisions with a separate SMAS (superficial musculoaponeurotic system) dissection to eliminate hollowing and reduce Frey's syndrome. Concerns regarding access to anteriorly sited tumors when using a face lift approach for

parotidectomy do not appear to be borne out in anatomic studies (Nouraei, Al-Yaghchi, and Ahmed et al. 2006) (Figures 8.5 and 8.6).

Once the skin flap is elevated, the sterno-cleidomastoid muscle (SCM) is identified with the overlying greater auricular nerve, whose branch to the earlobe may be preserved if it does not compromise tumor resection (Figure 8.4e). The anterior border of the SCM is dissected free of the posterior parotid gland, which is retracted anteriorly. Deeper dissection at the superior end of the SCM will allow identification of the posterior belly of the digastric muscle. The facial nerve trunk lies 4 mm superior to the digastric and at the same depth and is an important landmark. Next, attention is turned to the preauricular region with sharp and blunt dissection down the cartilage of the external auditory meatus to the bony portion of the meatus. A strip of parotid tissue remains, which separates the cervical from the preauricular dissection, and this tissue is carefully dissected away to the depth of the digastric muscle. Some troublesome bleeding has to be controlled with bipolar diathermy under direct vision superficial to where the facial nerve will be identified. The facial nerve trunk can be confirmed with a nerve stimulator and the nerve branches are dissected out peripherally to mobilize and remove the superficial parotid. It is usually best to dissect either the frontal or mandibular branches first, depending on the site of the tumor, and then proceed stepwise inferiorly or superiorly dissecting the branches in order and staying superficial to the nerves.

If the tumor directly overlies the facial nerve trunk, making it impossible to access safely, then the peripheral branches can be identified and followed backward as a retrograde parotidectomy, although this is more tedious. The mandibular branch of the facial nerve, where it crosses the anterior facial vein or the buccal branch with its close relationship to the parotid duct (Pogrel, Schmidt, and Ammar 1996), can be found initially. Despite a 66% incidence of weakness 1 week post-parotidectomy, normal facial nerve function was present in 99% of 136 retrograde parotidectomies in one series (O'Regan et al. 2007).

In tumors of the deep lobe it is usually necessary to undertake a total parotidectomy. The superficial parotidectomy is performed, preserving the facial nerve and dissecting the superficial lobe from superiorly so that it remains attached to the deep lobe inferiorly and at the tail. Most deep lobe