A. Epidemiology and Etiology

Cancer of the nasopharynx (NP) is rare in the United States and Europe, but it is a common cancer in China, representing 18% of cancer cases in that population. Chinese immigrants residing in the United States have a higher incidence of NP cancer than Americans, and California Caucasians born in Southeast Asia have a higher incidence of NP cancer than do American Caucasians. The epidemiologic data suggest that genetic factors play an important role, as do environmental causes such as food containing preserved, salted fish. Other populations that show a high incidence of NP cancer, although less than the Chinese, are North Africans and Eskimos.

B. Anatomy

The NP is the superiormost portion of the pharynx (divided into the nasopharynx, oropharynx, and hypopharynx) located just below the sphenoid sinus. The NP is close to many critical structures. Superiorly, it is bounded by the pituitary gland, optic pathway, cavernous sinuses, and cerebrum.Anteriorly, it is bounded by the ethmoid sinus, maxillary sinus, and orbits. Laterally, it is surrounded by cranial nerves, carotid arteries, and jugular veins. Cranial nerves V and VI are the most commonly involved cranial nerves at presentation. Posterior to the eustachian tube opening is the fossa of Rosenmüller, which is probably the most frequent site of NP cancer (Fig. 7–1).

The NP has a rich network of lymphatics; consequently patients may present with a painless, enlarged lymph node in the posterior triangle of the neck. Frequently, an NP mass is discovered only after a diligent search for the primary tumor in such a patient. Because of its anatomic position, NP cancer, even in an early stage, can infiltrate many critical structures. Radiotherapy (RT) has been the treatment of choice for NP cancer, and chemotherapy has been used as an adjunct for advanced disease. Surgery has a limited role in the management of NP cancer and consists primarily of nasopharyngoscopy and biopsy; surgery is rarely performed as salvage therapy for persistent neck disease or for persistent primary site disease.
Nasopharyngeal Cancer

A. Epidemiology and Etiology

B. Anatomy

C. Histology
Suspect cancer if there are painless, enlarged cervical nodes or cranial nerve palsy

D. Diagnosis
FNA of abnormal neck nodes, if positive proceed with nasopharyngoscopy, CT or MRI of head and neck, chest radiograph

E. Staging
Stage I (T1 N0)
Stage II (T2 N0)

F. Treatment
Stage I (T1 N0): Irradiation alone
6800–7000 cGy in 200 cGy fractions
5 fractions per week
4500–5000 cGy to the clinically negative neck

Chemotherapy: Cisplatinum 100 mg/m² on days 1, 22, 43 then 3 courses of cisplatinum 80 mg/m² on day 1 and 5-FU 1 g/m²/day on days 1–4; cycle repeated every 4 weeks

Assess response after 4–6 weeks with physical examination, CT, MRI

No residual disease
No further treatment, follow patients with CT, MRI every 2–3 months for 2 years then every 6 months

Partial response
Treat with surgery, brachytherapy or stereotactic radiosurgery

Stage II (T2 N0): Irradiation

Stage III (T3 N0, T1–3 N1)
Stage IV (T4 N0–1, any lesion with metastases)

G. Treatment