Tumors of the buccal cavity can arise at several sites:
- the buccal floor,
- the mobile portion of the tongue (anterior two thirds),
- cheek,
- retromolar trigone (limited medially by the intermaxillary commissure and laterally by the ascending branch of the inferior maxillary artery,
- medial surface of the ramus of the mandible,
- junction of the fauces and tongue,
- gingival crest,
- intermaxillary commissure,
- vault of the bony palate.
Lesions of the oropharynx arise in the:
- lateral wall:
  • tonsillar fossa (including the supratonsillar fossa),
  • anterior and posterior fauces,
  • palatine tonsil,
  • glosso-palatine sulcus;
- anterior wall:
  • glosso-epiglottic sulcus (valleculae),
  • base of the tongue;
- superior wall:
  • antero-inferior surface of the soft palate,
  • free edge of the palate and uvula;
- posterior wall.

The majority of lesions are epidermoid (squamous) carcinomas of varying degrees of differentiation, more rarely muco-epidermoid carcinomas, adenoid cystic carcinomas, adenocarcinomas or non-Hodgkin's lymphomas. Exceptionally, malignant melanomas of the tonsil or its fossa may occur. Tumors of bony origin arising from the mandible will not be discussed here [6].

Although the clinical examination of these two regions is easy, these tumors are often diagnosed relatively late for several reasons: on the one hand, self neglect of the patients due to chronic alcoholism; on the other hand, particularly relevant for the oropharynx, there are no real anatomical barriers to the spread of these lesions.

The degree of infiltration can be appreciated by clinical palpation, but this is no substitute for accurate imaging.

In fact, the development of the new radiological techniques, particularly CT and MRI, has provided details of tumor size and extension into adjacent structures. These tumors are extremely lymphophilic and it is not uncommon for patients to present initially with apparently primary lymph node enlargement.

It is therefore imperative to assess the cervical lymph node chains and treat them in the same way as the primary tumor.

**Review of anatomy**

See figure 10.1

**Clinical features**

**Oropharynx**

The clinical signs of tumors in the oropharynx are non specific and include intermittent unilateral pain-
Fig. 10.1. Diagram of the lateral spaces of the buccal cavity on a coronal section. 1 Soft palate; 2 parapharyngeal space; 3 tongue; 4 mylohyoid muscle; 5 masticatory space; 6 masseter; 7 medial pterygoid; 8 aponeurosis; 9 submandibular gland

Fig. 10.2 a, b. Tumor of the left tonsil invading the soft palate, amygalo-glossal sulcus and retropharyngeal space. a Axial CT section: involvement of the soft palate at the level of the posterior fauces (large arrow) and retropharyngeal space (small arrow); b axial section of the oropharynx which demonstrates involvement of the left tonsil (large arrow), amygalo-glos sal sulcus anteriorly (small arrow) and posterior spread (hollow arrow)

ful dysphagia, otalgia, fetid halitosis or primary isolated lymph node enlargement. The macroscopic appearances of the lesion determine its imaging appearance; it may be nodular or ulcero-vegetative and more rarely infiltrative. Locoregional and lymph node spread depend on the site of origin. Lesions of the palatine tonsil (fig. 10.2) arise in contact with lymphoid tissue and are particularly lymphophilic [42]; they are rather ulcerative and nodular, sometimes difficult to detect if they arise in a cryptic tonsil. Spread is towards the fauces, the tonsillo-glossal sulcus with deep spread towards the constrictor muscles, fat spaces and the muscles of mastication explaining the late occurrence of trismus.

Lesions of the anterior fauces often involve the soft palate and intermaxillary commissure anteriorly, the tonsil posteriorly, the palatoglossus muscle and particularly the mandible laterally and the junctional zone of the tongue. Lesions of the posterior fauces invade deeply to the palatopharyngeal and pterygoid muscles superiorly. They extend anteriorly towards the soft palate and inferiorly towards the hypopharynx.

Lesions of the tonsillo-glottic sulcus extend towards the base of the tongue, and the prognosis is the same as for tumors of the tongue base.

Lymphatic drainage is to the subdigastric, superior spinal, jugulo-carotid and transverse cervical groups and more rarely to the submental or submaxillary