4.5 Major Salivary Gland Tumours

General:

Salivary gland tumours are tumours which arise in salivary gland tissue. Salivary gland tissue is found in the major salivary glands (parotid, submandibular and sublingual glands) as well as in the minor salivary glands. The minor salivary glands are located throughout the aerodigestive tract. Salivary gland tumours comprise a broad spectrum of tumours. The majority are benign. Amongst the malignant ones, there is a wide range of histologic types and biological behaviours. The prognosis and the tendency to metastasize vary amongst the various histologic types.

Accurate diagnosis and accurate staging of the extent of the disease are important factors in the management of these tumours.

Histology and Pathology

The suggested histopathologic typing is that proposed by the World Health Organization:\(^1\)

- Acinic cell carcinoma
- Mucoepidermoid carcinoma
- Adenoid cystic carcinoma
- Polymorphous low-grade adenocarcinoma
- Epithelial-myoepithelial carcinoma
- Basal cell adenocarcinoma
- Sebaceous carcinoma
- Papillary cystadenocarcinoma
- Mucinous adenocarcinoma
- Oncocytic carcinoma
- Salivary duct carcinoma
- Adenocarcinoma
- Myoepithelial carcinoma
- Carcinoma in pleomorphic adenoma
- Squamous cell carcinoma
- Small cell carcinoma
- Other carcinomas

Histologic Grade (G)

Histologic grading is applicable only to some types of salivary cancer: mucoepidermoid carcinoma, adenocarcinoma not otherwise specified, or when either of these is the carcinomatous element of carcinoma in pleomorphic adenoma.

In most instances, the histologic type defines the grade (i.e., salivary duct carcinoma is high grade; basal cell adenocarcinoma is low grade).

Staging

Clinical Staging. The assessment of primary salivary gland tumours includes a pertinent history (pain, trismus, etc.), inspection, palpation, and evaluation of the cranial nerves. Radiologic studies may add information valuable for staging. The soft tissues of the neck from the skull base to the hyoid bone must be studied, with the lower neck included whenever lymph node metastases are suspected. Images of the intratemporal facial nerve are critical to the identification of perineural tumour in this area. Cancers of the submandibular and sublingual salivary glands merit cross-sectional imaging. Computed tomography (CT) or MRI may be useful in assessing the extent of deep extraglandular tumour, bone invasion, and deep tissue

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extent (extrinsic tongue muscle and/or soft tissues of the neck).

**Pathologic Staging.** The surgical pathology report and all other available data should be used to assign a pathologic classification to those patients who have resection of the cancer.²

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Practice Pathway for the Management of Cancer of the Major Salivary Glands

**Presenting symptoms**
- Lump in parotid or submandibular gland
- Pain/lump in neck

**Initial Workup**
- History and Physical Biopsy
- CT (Head & Neck: skull base to clavicles)
- Tissue diagnosis by fine needle aspiration cytology or by biopsy.
- Consultation by expert pathologists in case of an unclear diagnosis strongly recommended.

**Treatment of the Primary**
- Surgery is the primary modality of therapy.
- RT is indicated as adjuvant therapy after surgical resection in many cases.¹
- Chemotherapy and RT may be used for palliation in advanced diseases.

**Management of the Neck**
- Nodal status?
- N0
- N1-N3
- Neck dissection +/-RT
- Consider elective neck treatment in locally advanced disease or other high risk features

**Follow Up and Surveillance**
- History and Physical Exam
- Year 1 and 2 every 2-4 months
- Years 3-5 every 6 months
- > 5 years every 12 months

**Information and Supportive/Psychosocial Care services need to be appropriate and available to patients throughout the continuum of care (see Part 5 p 48)**

¹ These patients are at high risk for xerostomia and preventive measures should be implemented. See Part 5 (p 42) or Guideline on Management of Oral Complications for details.