

Tumours of the oropharynx

Benign tumours

1. papilloma.
2. Adenoma.
3. Benign connective- tissue tumours (lipoma & fibroma).
4. Neurilemmoma.
5. Haemangioma.

Treatment

May be required for haemorrhage or obstructive symptoms. The choice lies between:

1. Diathermy coagulation: with ligation of the external carotid artery if necessary.
2. Cryotherapy or laser excision.

Malignant tumours

Overview

Oropharyngeal tumours are a group of often uncommon (and sometimes very rare) tumours. **Squamous cell carcinoma (SCC)** is the most commonly encountered pathology (it occurs in about 90% of oropharyngeal tumours) but other diseases include:

- Salivary gland cancers
- Adenocarcinoma
- Lymphoma
- Sarcomas
- Melanomas

Anatomy

The oropharynx includes the:

- Base of tongue
- Inferior surface of the soft palate and uvula
- Interior and posterior tonsillar pillars
- Glossotonsillar sulci
- Pharyngeal tonsils
- Lateral and posterior pharyngeal walls

The borders of the oropharynx include:

- Anteriorly - the circumvallate papillae
- Superiorly - the plane of the superior surface of the soft palate
- Inferiorly - the plane of the hyoid bone inferiorly
- Laterally/posteriorly - the pharyngeal constrictors
- Laterally - the medial aspect of the mandible

Epidemiology

- There are an estimated 130,000 new cases a year worldwide.
- Mouth and oropharyngeal cancers account for 1.7% of diagnosed cancers in the UK.
- Men are involved about 3 or 4 times as frequently as women.
- There are geographical variations in prevalence; in India, this group of cancers accounts for 50% of all cancer cases.

Risk factors

1. Elderly.
2. Male sex.
3. Heavy smoking.
4. Heavy alcohol consumption.
5. Poor dentition.
6. Chewing tobacco and similar substances (e.g. betel quid, common in parts of Asia).
7. Nutritional deficiencies (e.g. zinc and vitamin A).
8. The **human papilloma virus** is thought to be linked to oropharyngeal cancer.
9. Poor mouth cleanliness.

Site of origin

1. Tonsillo-lingual sulcus.
2. Tonsil
3. Palate
4. Uvula.
5. lower part of the posterior wall of the oropharynx.

Assessment

1. History

Presenting symptoms include:

- Sore throat
- Bleeding causing haemoptysis
- Dysphagia
- Odynophagia (pain on swallowing)
- Halitosis
- Pain referred to the ear
- Changes in the voice
- Trismus suggests involvement of the pterygoid musculature
- Presentation may be the lump of a lymph node metastasis
- Weight loss

2. Examination

It is important to do a full head and neck examination (inspection and palpation) including the mouth. A mass may be visible. Palpate for nodes. Lymph node metastases

generally occur in the upper jugular chain, although they can "skip" to lower levels and spread. Bilateral metastases are more common with tongue base and soft palate lesions, especially with midline lesions.

Suspicious findings

- Any unexplained red or white patches - particularly if these are painful, swollen or bleed easily, should be treated as suspicious until proven otherwise.
- A neck mass or mouth lesion combined with regional pain might suggest a malignant or premalignant process.

3. Investigations

- Biopsy is the only way to establish the diagnosis.
- A fine needle aspiration or biopsy may be an alternative for a neck mass.
- Lesions that are harder to reach may require endoscopy.
- Imaging (CT and MRI) studies should focus on identifying spread: invasion through the pharyngeal constrictors, bony involvement of the pterygoid plates or mandible, invasion of the parapharyngeal space or carotid artery, involvement of the prevertebral fascia and extension into the larynx.
- Chest X ray will identify **pulmonary metastases** .
- Liver function test may raise suspicions of abdominal metastases (in which case, a CT of the abdomen is warranted).

Tumour staging

Site	Stage	TNM Classification
Tumour	Tx	not defined
	T0	no primary tumour or carcinoma in situ
	T1	less than 2 cm diameter
	T2	tumour 2 to 4 cm diameter
	T3	tumour over 4 cm diameter
	T4	tumour invades surrounding structures
Nodes	Nx	lymph nodes cannot be assessed
	N0	no regional nodes involved
	N1	single ipsilateral lymph node < 3 cm in diameter
	N2a	single ipsilateral lymph node between 3 and 6 cm in diameter
	N2b	multiple ipsilateral lymph nodes, none larger than 6 cm diameter
	N2c	bilateral or contralateral lymph nodes, none larger than 6 cm diameter
Metastasis	N3	lymph node larger than 6 cm in diameter
	Mx	not assessed
	M0	no distant metastases
	M1	distant metastasis present

The disease can be classified as:

- Stage I - early disease.
- Stage II - locally advanced disease.
- Stage III - tumour present in lymph nodes.
- Stage IV - metastatic disease.

Management

- Management will be by a multidisciplinary team which may involve a combination of ENT surgeons, oncologists, restorative dentists and others such as specialist nurses, speech and language therapists and dieticians.
- The treatment modality depends on the type of oropharyngeal cancer, the extent and grade of the disease and the impact of the disease and treatment on the upper aerodigestive tract.

Surgical treatment

Monoblock removal: wide removal of the tumour and cervical nodes en block. A portion of the mandible, tongue, cheek, tonsil and palate is included as required in the excision (commando operation). A free flap repair gives the best result cosmetically.

Radiotherapy and chemotherapy

Radiotherapy will be limited to those patients with stage I disease. **Chemotherapy** may be helpful for patients with stage II disease and possibly later stages too depending on individual cases. It will also be used in recurrent cases where surgery and radiotherapy have already been tried. Treatment of oropharyngeal SCC increasingly moves towards chemotherapy and radiotherapy rather than surgery. Tumours are often poorly differentiated and respond well to radiotherapy. Chemotherapy may also function as a radiation sensitizer. In recent studies, the local control rate has achieved 90% even in stage IV disease, although overall survival has not improved over more traditional surgery and radiation therapy. There may be less problems with swallowing after chemotherapy than with surgery and radiotherapy.

Combination treatments

A combination of chemo- and radiotherapy may be used but it is a tough regime and not suitable for all patients. Chemoradiation \pm surgery is more effective than radiotherapy \pm surgery for all the cancers combined but there is still a paucity of data concerning the outcomes of treatment in site-specific and stage-specific oropharyngeal cancers.

Palliative care

This will need to be considered in the terminal stages of the disease.

Psychological support

Whilst mortality is at the forefront of many peoples minds when considering outcome, the quality of life experienced by the individual prior to terminal disease needs to be considered. Important factors contributing to the quality of life include stage of illness, gastrostomy-tube dependence, complication, recurrence and treatment modality. These issues need to be addressed openly with the person and their family in order to help them come to terms with the disease.

Complications

- Velopharyngeal insufficiency (VPI).
- Other complications may include hypernasal speech, dysphagia and middle ear effusion (from scarring of the eustachian tube or loss of function of tensor and/or levator palatini muscles).

Prognosis

Recurrence

The risk of recurrence is strongly dependent on the site and stage of the original disease.

Mortality

The 2 year survival rate is:

- Stage I - 89.7%
- Stage II - 71.8%
- Stage III - 57.6%
- Stage IV - 48.6%
- Unknown staging - 69.8%

Prevention

- Promotion of healthy lifestyles is the mainstay of prevention for this and many other diseases.
- High risk patients should be encouraged to visit the dentist regularly.