# Tumors of the oropharynx

## Anatomy of the oropharynx:-

The oropharynx includes the:

1. Base of tongue
2. Inferior surface of the soft palate and uvula.
3. Interior and posterior tonsillar pillars.
4. Glossotonsillar sulci.
5. Pharyngeal tonsils.
6. 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 .
- Laterally/posteriorly - the pharyngeal constrictors

Laterally - the medial aspect of the mandible

## Benign tumors:-

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 ligature of the external carotid artery if necessary.

2- Cryotherapy or laser excision.

## Malignant tumours:-

- **Squamous cell carcinoma** (SCC) is the most commonly encountered pathology (it occurs in about 90% of oropharyngeal tumours) but other diseases include:

1- Salivary gland cancers.

2- Adenocarcinoma.

3- Lymphoma.

4- Sarcomas.

5- Melanomas.

# 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:-

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

## Site of origin:-

- Tonsil-lingual sulcus.
- Tonsil
- Palate
- Uvula.
- 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:-

1. Full head and neck examination.
2. Systemic examination.

### Suspicious findings:-

- Any unexplained red or white patches - particularly if these are painful, swollen or bleed easily, should be treated as suspicious until prove 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).

## Tumor staging:-

- T: 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.
  - N: Nodes.
  - Nx: lymph nodes cannot be assessed.
  - N0: no regional nodes involved.
  - N1: single ipsilateral lymph node less than 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.
  - N3: lymph node larger than 6 cm in diameter.

M: Metastasis.

- 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:-**
  1. PRIMARY TUMOURS.
  2. LYMPH NODES IN THE NECK.

## Radiotherapy and chemotherapy:-

- Radiotherapy will be limited to those patients with stage I disease.
- Chemotherapy may be helpful for patients with:-
  1. stage II disease .
  2. later stages too depending on individual cases.
  3. It will also be used in recurrent cases where surgery and radiotherapy have already been tried.

## Combination treatments:-

- A combination of chemo- and radiotherapy may be used but it is a tough regime and not suitable for all patients. Chemoradiation ± surgery is more effective than radiotherapy ± 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.
- MAY INCLUDE: TRACHEOSTOMY AND /OR GASTROSTOMY

## Psychological support:-

- Whilst mortality is at the forefront of many people's 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 of treatment:-

- 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%**
- **Stage II - 71%**
- **Stage III - 51%**
- **Stage IV- 48%**
- **Unknown staging- 69%**

## 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.