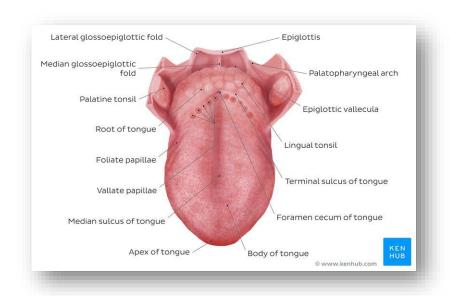
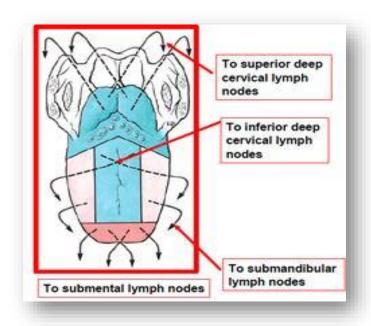
# Tongue Cancer





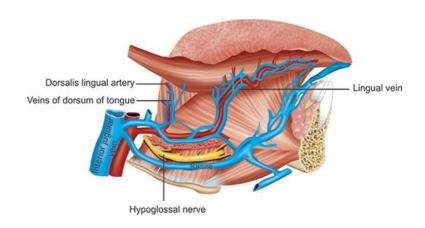
# **Anatomy of the Tongue**



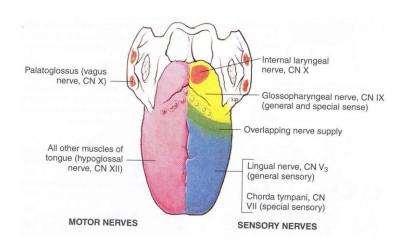


Lymphatic drainage of tongue





Blood supply to the tongue



Nerve supply to the tongue





# Oropharangeal Carcinoma

- The incidence is greater in men than in women
- It is predominantly a disease of the elderly (those over 60 years of age).



### **Risk Factors**

- Tobacco
- Alcohol
- Areca nut/pan masala
- Human papillomavirus
- Epstein–Barr virus
- Plummer–Vinson syndrome
- Poor nutrition



# **Pathology**

- Histology- Squamous cell carcinoma is the predominant histology.
- Tumors mainly arise from the mucosal epithelium.
- Chronic exposure of the mucosal surface to carcinogenic substances can produce multiple subclinical sites of carcinoma.



# Premalignant Lesions

#### Low-risk/equivocal-risk lesions

- Oral lichen planus
- Discoid lupus erythematosus
- Discoid keratosis congenita

#### **Medium-risk lesions**

- Oral submucous fibrosis
- Syphilitic glossitis
- Sideropenic dysphagia (Paterson–Kelly syndrome)

#### **High-risk lesions**

- Erythroplakia
- Speckled erythroplakia
- Chronic hyperplastic candidiasis









Speckled leukoplakia on the lateral border of

**Erythroplakia of the left soft** palate and







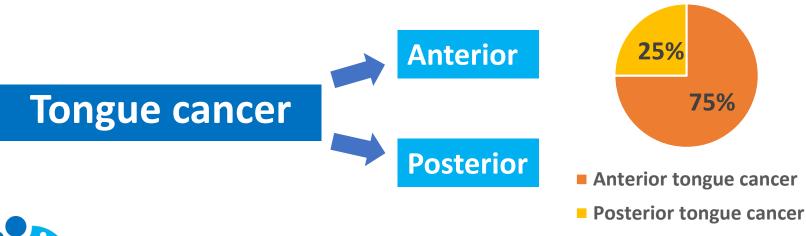
Metachronous tumour in the right mandibular alveolus

Chronic hyperplastic candidiasis of the left buccal mucosa



## **Tongue Cancer**

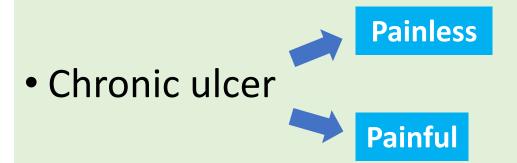
- Main histological type is squamous cell carcinoma.
- Three morphological types
  - 1) Exophytic
  - 2) Ulcerative
  - 3) Infiltrative







### **Clinical Features**



Neck lump (due to cervical lymph node enlargement)

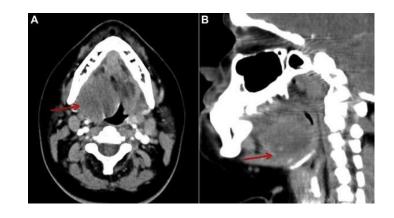
Dysphagia – In posterior tongue cancer



# Investigations

#### To diagnose

Incisional biopsy



#### To stage the tumor

- MRI Do before diagnostic biopsy
- CT neck, thorax, abdomen
- Radioisotope bone scan of the facial skeleton
- FNAC of enlarge cervical lymph nodes



# Classification & Staging

#### Primary tumour (T)

TX Primary tumour cannot be assessed

TO No evidence of primary tumour

Tis Carcinoma in situ

T1 Tumour <2 cm in greatest dimension

T2 Tumour >2 but <4 cm

T3 Tumour >4 cm but <6 cm

T4 Tumour invades adjacent structures, e.g. mandible, skin



#### Regional lymph nodes (N)

NX Regional lymph nodes cannot be assessed

NO No regional lymph node metastasis

N1 Metastasis in a single ipsilateral lymph node <3 cm in greatest dimension

N2a Metastasis in a single ipsilateral lymph node >3 cm but not more than 6 cm

N2b Metastasis in multiple ipsilateral lymph nodes, none >6 cm in greatest dimension

N2c Metastasis in bilateral or contralateral lymph nodes, none >6 cm in greatest dimension

N3 Metastasis in any lymph node >6 cm

#### Distant metastasis(M)

M0 No evidence of distant metastasis

M1 Evidence of distant metastasis





### Stage

0 - Tis N0 M0

I - T1 N0 M0

II - T2 N0 M0

III - T3 N0 M0

T1, T2, T3 N1 M0

IV - T4 N0 M0

Any T N2 M0

Any T N3 M0

Any T Any N M1



# Prognosis

Posterior tongue cancer- poor prognosis

- HPV positive- good prognosis
- HPV negative- bad prognosis

 Positive margins, perineural invasion, lymphovascular invasion, and positive lymph nodes - bad prognosis



### **Treatment**

#### Depend on,

- Site of disease
- Stage
- Histology
- Concomitant medical disease
- Social factors

#### Multidisciplinary team approach



### 1.Surgery

- Wide local excision
- Partial glossectomy
- Hemiglossectomy
- Reconstruction

- 2. Radiotherapy
- 3.Chemotherapy



### Prevention

- HPV vaccination
- Avoid carcinogens- Cessation of smoking, reduction in alcohol consumption
- Treat to premalignant conditions



# Management of premalignant conditions

- Elimination of associated aetiological factors
- All erythroplakia and speckled leukoplakia -urgent incisional biopsy
- Severe epithelial dysplasia and carcinoma in situ -ablated by surgical excision or laser vaporization
- Small lesions -surgical excision and primary closure
- Larger defects- laser vaporization and allowed to epithelialize spontaneously

