Today's Topics -

Benign & malignant tumours of larynx.

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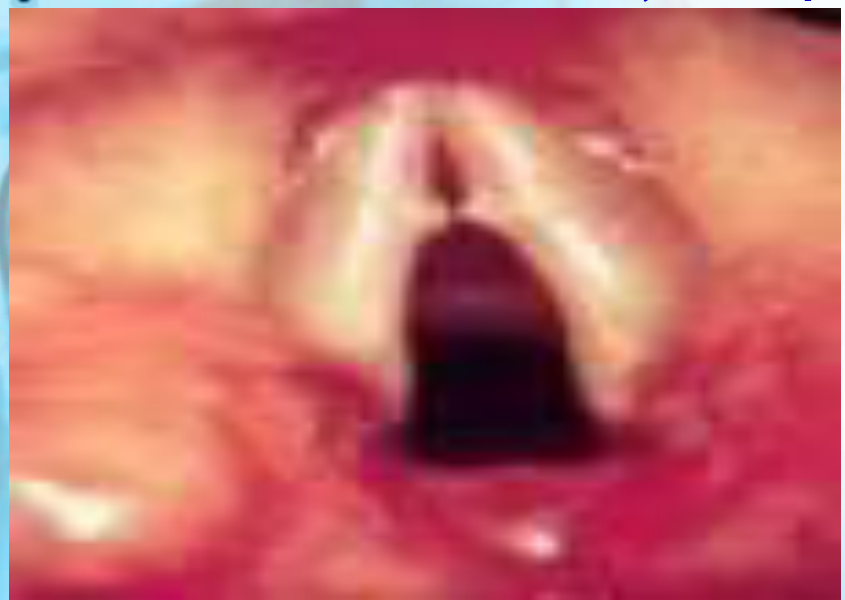
Benign tumours of larynx

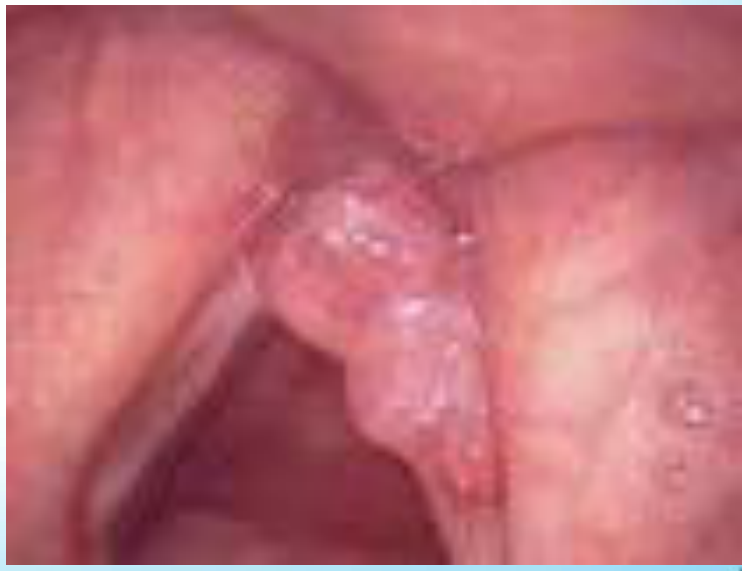
Benign tumours of larynx are not as common as the malignant ones.

They are divided into-

a) Non-neoplastic tumours.

b) Neoplastic tumours.





Benign tumours of larynx

NON- NEOPLASTIC TUMOURS.

- They are not true neoplasms but are tumour- like masses which form as a result of infection, trauma or degeneration.
- They are seen more frequently than true benign neoplasms.
- Types-

a) Solid non-neoplastic lesions:

1. Vocal cord nodules.
2. Vocal cord polyp.
3. Reinke's oedema.
4. Contact ulcer.
5. Intubation granuloma.
6. Leukoplakia or keratosis

b) Cystic non-neoplastic lesions:

1. Ductal cyst.
2. Saccular cyst.
3. Laryngocele.

Benign tumours of larynx

NEOPLASTIC.

1. Squamous papilloma- a) Juvenile type.
   b) Adult onset type.
2. Chondroma.
3. Haemangioma .
4. Lipoma.
5. Fibroma.
6. Rhabdomyoma.

VOCAL CORD NODULES

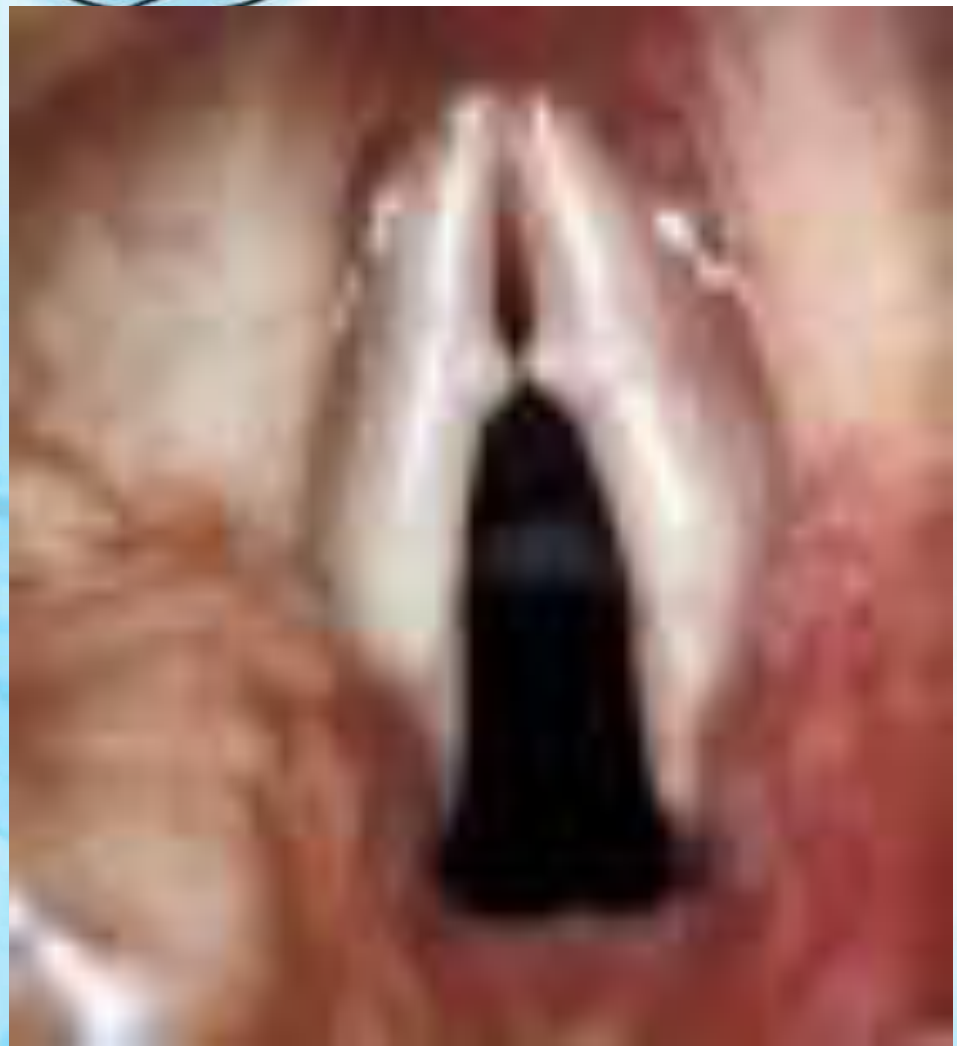
- Also called singer's nodules or screamer's nodules.
- Common in teachers, pop singers, actors, politicians, mothers of many children.
- Resulting from vocal abuse, speak too much too loudly or improper vocal technique.
- Presentations – persistent hoarseness, vocal fatigue , pain in the neck.
- Examination shows – bilateral , small grayish white nodules situated at the junction of the anterior 1/3rd and posterior 2/3rd of the vocal cords.
- Treatment- very small nodules- speech therapy.

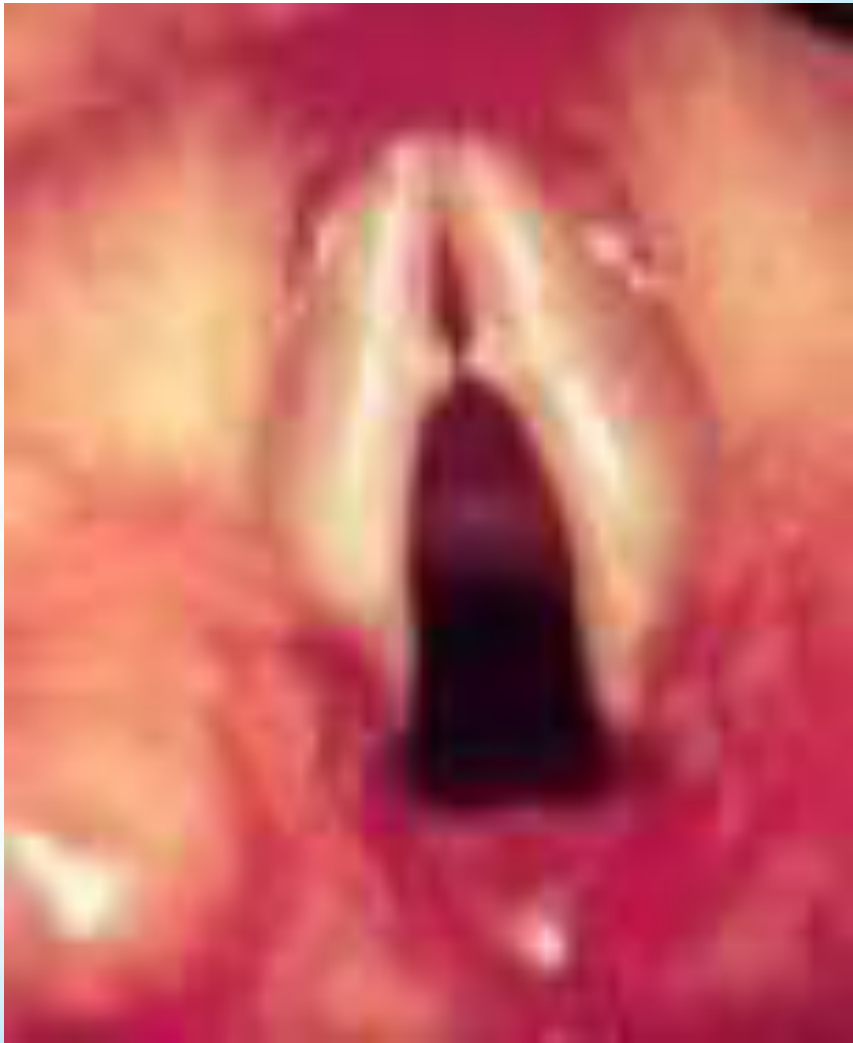
  large nodules- Microlaryngeal excision or laser excision.

  Voice rest.

  Speech therapy.

VOCAL CORD NODULES





Microlaryngoscopy.

NEOPLASM OF LARYNX

Benign

A. *Epithelial tumours:*

- Single papilloma of the larynx
- Multiple papilloma of the larynx

B. *Connective tissue tumours:*

- Fibroma of vocal cord
- Chondroma
- Angioma
- Lipoma
- Rhabdomyoma
- Leiomyoma

NEOPLASM OF LARYNX
Malignant

A. Epithelial tumours:

- Squamous cell carcinoma (95-97%)
- Adenocarcinoma
- Cylindroma
- Basal cell carcinoma

B. Connective tissue tumours:

Extremely rare

- Fibrosarcoma
- Chondrosarcoma
- Leiomyosarcoma


Multiple papilloma
of
the larynx

Multiple papilloma of the larynx

Causes :

- Human papilloma virus (HPV) types 6 and 11.
- It is commonest laryngeal tumor in children but rare in adults .
- The vocal cords and ventricular bands are the usual sites but spread may occur to epiglottis , trachea and bronchi .

Presentation :

- Initially hoarseness of voice and abnormal cry and later stridor and dyspnea.
- They appear as glistening white irregular growths, pedunculated or sessile, friable and bleeding easily.

Multiple papilloma of the larynx

Diagnosis :

- ✓ History
- ✓ FOL
- ✓ Direct laryngoscopy & biopsy

Treatment :

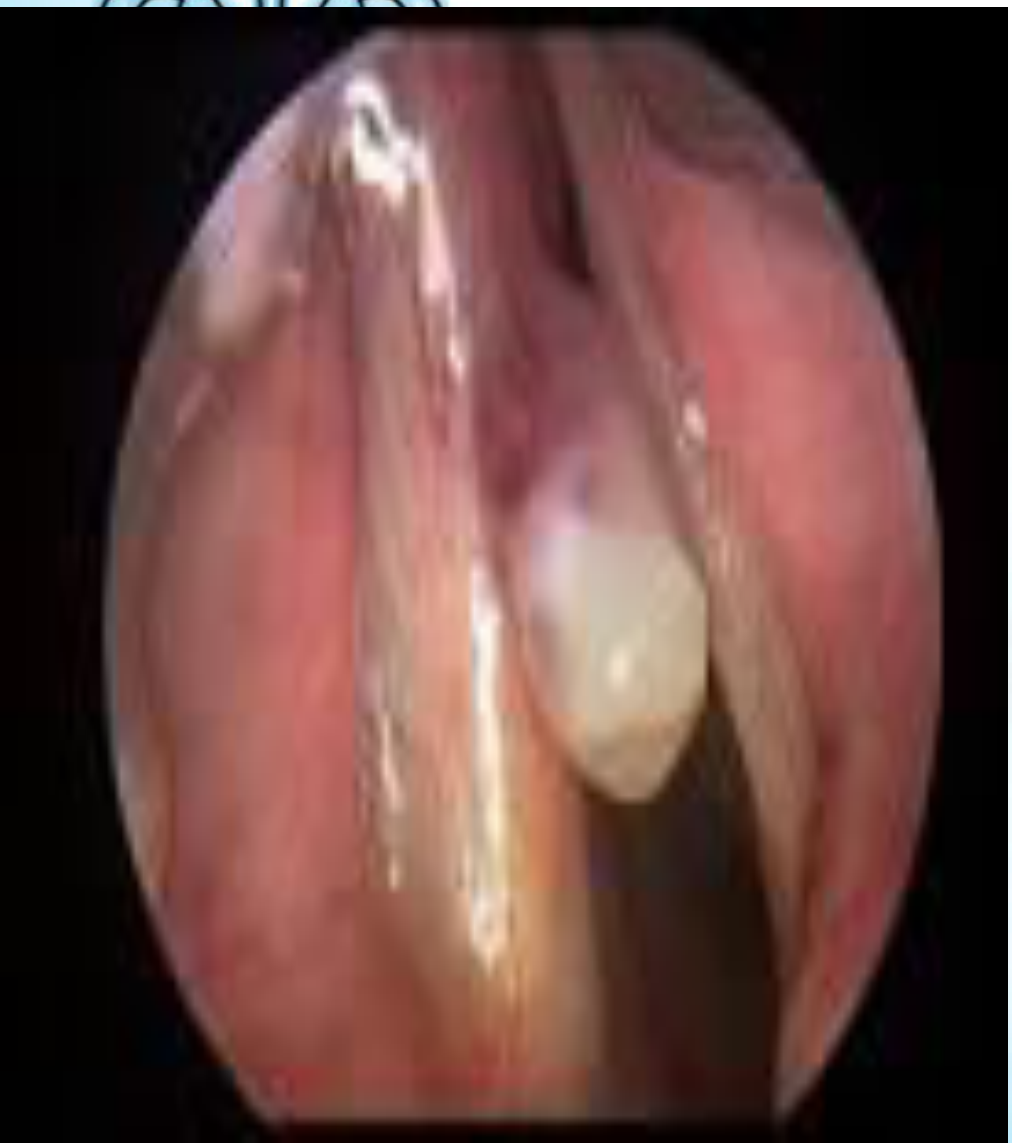
The principle of treatment is to remove papillomas as they appear without damaging the larynx.

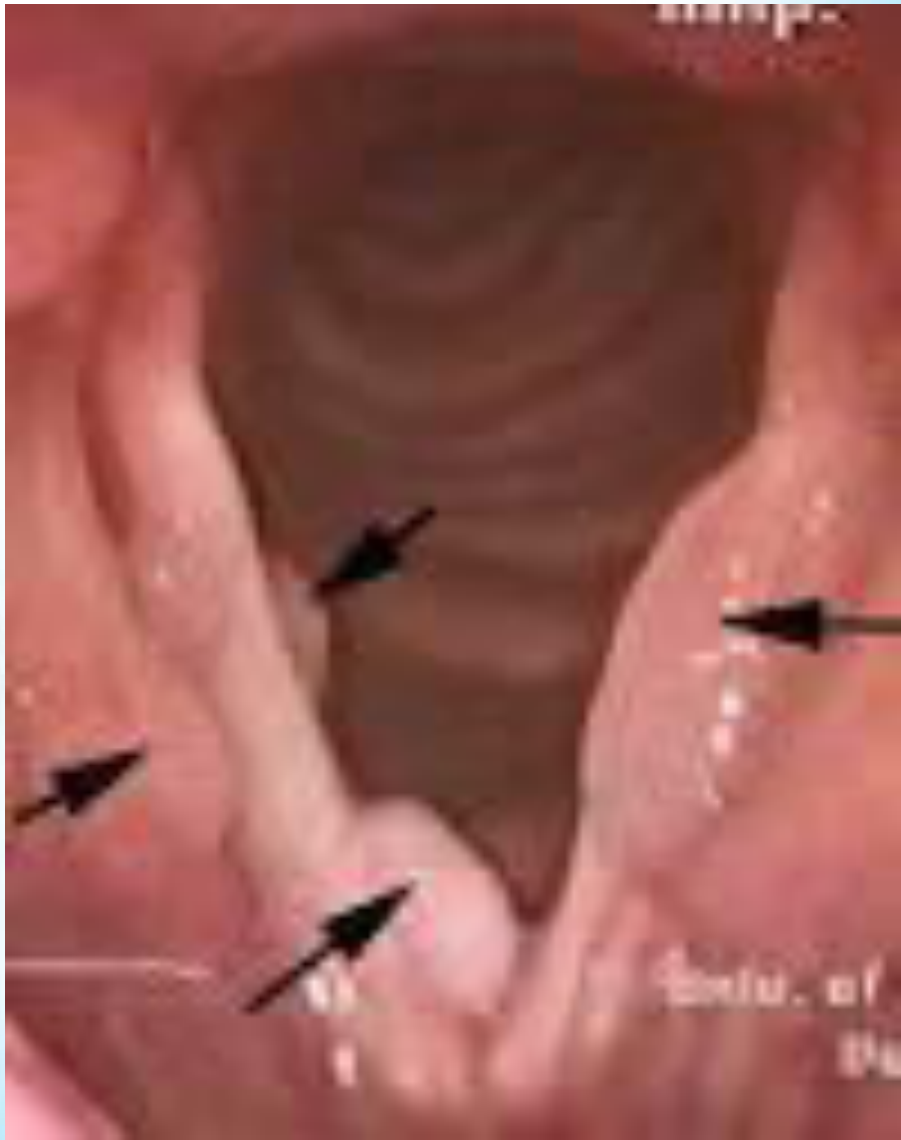
- Microlaryngeal excision or laser excision (CO_2).
- Other methods of treatment includes: Alfa interferon , cryotherapy etc.
- Tracheostomy should be avoided as it can become implanted into trachea and bronchi.
- Recurrence is common .

Adult onset papilloma.

- Common in males (2:1)
- Age group of 30-50 years.
- Usually single, smaller in size, less aggressive and does not recur after surgical removal.
- Usually arises from the anterior half of vocal cord or anterior commissure.
- Treatment – Microlaryngeal excision or laser excision.

Laryngeal papillomas





Carcinoma of the larynx

Carcinoma of the larynx

Incidence:

- Cancer larynx is widely prevalent in our country.
- Squamous cell carcinoma of the larynx is the commonest head and neck cancer in the western world.
- Represents 1% - 2% of all malignancies in men.
- Mostly seen in the age group of 40-70 years.
- About 20 % of head and neck cancer is laryngeal cancer.

Carcinoma of the larynx

Aetiology:

- **Unknown**
- **Age : peak incidence 6th to 7th decade of life**
- **Sex : male : female ratio 3-5 : 1**
- **Tobacco increased risk of cancer compared to non-smokers .**
- **Alcohol increased risk of cancer compared to nondrinkers .**
- **Other risk factors includes- chronic viral infections with HPV, HIV , Herpes simplex virus ,**
- **Occupational exposure to nickel , leather paint , wood dust , asbestos ,**
- **Radiation & genetic factor .**

Carcinoma of the larynx

A) Clinical classification:

1. Supraglottic carcinoma (65-70%).
2. Glottic carcinoma (30%).
3. Subglottic carcinoma (5%)

B) Histological classification:

1. Squamous cell carcinoma (95%)
2. Verruca's carcinoma (3%)
3. Other rare tumors (2%)- adenocarcinoma, adenoid cystic carcinoma, fibrosarcoma, chondrosarcoma and lymphoma.

Carcinoma of the larynx

Clinical staging:

The AJCC (American Joint Committee on Cancer) has designated staging by using the tumors, nodes and metastases (TNM) classification .

- Tx- Primary tumor can not be assessed.
- To- No evidence of primary tumor.
- Tis - Carcinoma in situ.

Carcinoma of the larynx
T staging

- T1 (a) limited to one side.
- T1 (b) in two sites but one region.
- T2 affecting two or more regions but vocal cords are mobile.
- T3 confined to the larynx with fixed vocal cords.
- T4 tumour spread out side the larynx.

Carcinoma of the larynx

N staging of any tumour

- Nx - regional lymph nodes can not be assessed .
- N0 - no lymph node metastasis .
- N1 - metastasis in a single epsilateral lymph node, 3 cm. or less in greatest diameter .
- N2a - epsilateral single lymph node not more than 6 cm. in greatest diameter .
- N2b- epsilateral multiple lymph node not more than 6 cm. in greatest diameter .
- N2c - bilateral or contralataral lymph nos not more than 6 cm. in greatest diameter.
- N3 - metastasis in a lymph more than 6 cm. in diameter.

Distant metastasis

- M0- no metastasis .
- M1 - distant metastasis .

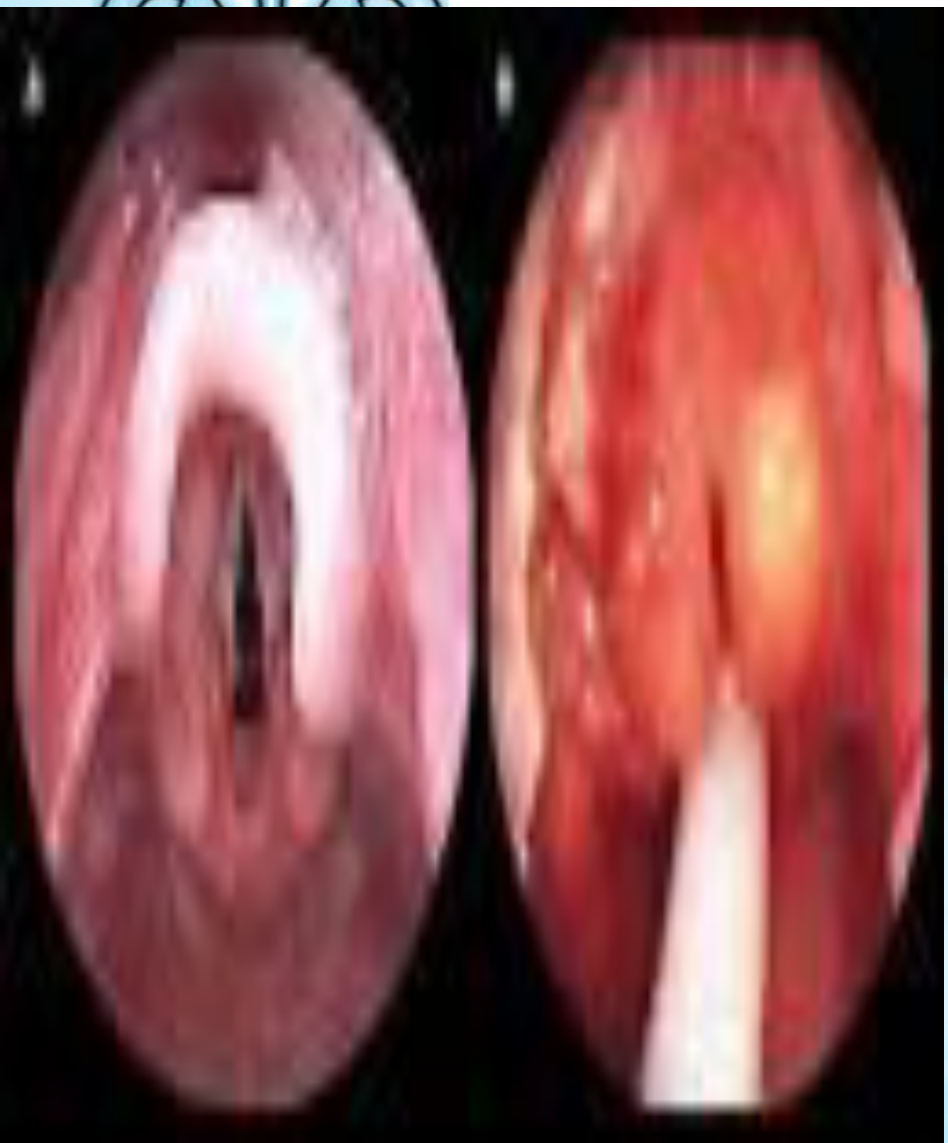
The glottic has virtually no lymphatic supply and has excellent prognosis .

Carcinoma of the larynx

Clinical presentations:

- **Persistent hoarseness of voice- is the commonest presentation for glottic and subglottic cancer.**
- **Stridor -is the late symptom of laryngeal cancer.**
- **Symptoms of supraglottic tumor – includes mild odynophagia , dysphagia , referred otalgia, neck lumps (due to direct invasion or nodal metastasis)**

Laryngeal carcinoma



Carcinoma of the larynx

Diagnosis

- History-
- Indirect laryngoscopic examination-
- Head & neck examination-
- FOL
- Radiological examination should includes-

✓ Chest x-ray to see any lung metastasis .

✓ CT / MRI scan to see extension of primary disease, presence of bone or cartilage invasion and presence of nodal disease.

✓ Ultrasonic scan of liver to see hepatic metastasis.

- Direct laryngoscopy under G.A to get biopsy and to see extension of primary disease .

Carcinoma of the larynx

Treatment

- Ideal treatment of laryngeal carcinoma is controversial but usually involves radiotherapy , chemotherapy and surgery .
- The aim of treatment are to provide maximal cure rate and to preserve voice .

Glottic carcinoma

* T1 (a/b) and T2 - Radiotherapy .
* T3 small without stridor – Radiotherapy .
* T3 large with strider - Total laryngectomy .
* T4 – Total laryngectomy +_ radical neck dissection if nodal metastasis .
* Recurrent tumour after radiotherapy - Total laryngectomy.

Treatment of ca- larynx.

Supraglottic carcinoma.

- ✓ T1 and T2 - Radiotherapy.
- ✓ Recurrent tumour after radiotherapy– Total laryngectomy .
- ✓ T3 and T4 – Supraglottic or total laryngectomy followed by radiotherapy .

Subglottic carcinoma.

- ✓ Small tumours - Radiotherapy
- ✓ Large tumours - Total laryngectomy .

Carcinoma of the larynx
Treatment

Patients with local or regionally advanced laryngeal cancer are treated with combination of radiotherapy , chemotherapy and surgery .

- Palliative treatment includes pain relief , tracheostomy , palliative radiotherapy , chemotherapy and occasional surgery.

Prognosis:

- Early laryngeal cancer without nodal metastasis has a survival rate about 5 years.
- Involvement of lymph node is associated with poor prognosis


Thank you
All