

NECK MASSES

Congenital

- **Midline**
 - Thyroglossal cyst
 - Dermoid cyst
- **Lateral**
 - Branchial cyst

Acquired

- Inflammatory
- Neoplastic
- Traumatic (hematoma)

History

Approach

- **PP: (Age, Sex)**
 - **Child: congenital or inflammatory**
 - **Middle: tumor or inflammatory.**
 - **Old: tumor**
- **HPI:**
 - **Duration**
 - **Painful/painless**
 - **Associated Sx (sore throat, URI symptoms)**
- **Systemic Rreview**
 - **General (fever, weight loss, malaise...)**
 - **Symptoms of hypo/hyperthyroidism**
 - **Difficulty swallowing or speaking (esophageal ca)**
 - **Respiratory Sx**
 - **GI Sx**

- **Past medical history**

- HIV or TB.
- Ill-fitting dental appliances.
- Chronic oral candidiasis.

- **Medication & radiation .**

- **Social History** : smoking , alcohol , contact with T.B.

- **Travel History**

Physical Examination

- **1. Inspection :**

- a. site
- b. shape .
- c. color .
- d. relation to swallowing.
- e. relation to tongue protrusion

- **3. Percussion :**

- for retrosternal extension of the thyroid

- **4. Auscultation**

- for bruits

- **2. Palpation :**

- a. temperature .
- b. tenderness .
- c. size .
- d. surface .
- e. edge .
- f. consistency .
- g. fluctuation .
- h. pulsatility .
- i. relation to skin .
- j. mobility .
- k. relation to underlying structures .

Complete Head & Neck Examination

1. Look for any mass or ulcer
2. L.N.
3. Ear , nose & throat examination
4. Sinuses
5. Mouth examination
6. Thyroid
7. Pharynx, larynx
8. Liver, spleen
9. LNs of body (axilla, inguinal)

Systemic examination

- RS
- GI

Radiological

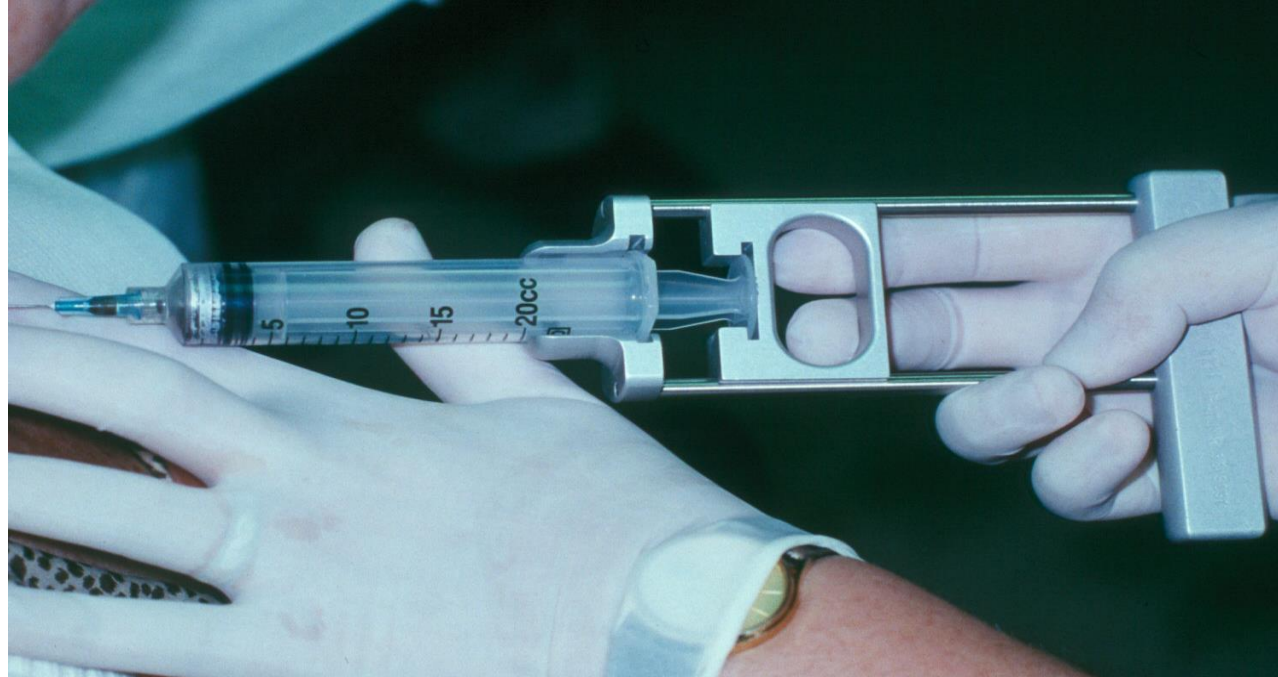
- **X-ray:** (not helpful).
- **Barium swallow:** in hypopharyngeal diverticulum.
- **US:** differentiate btw solid & cystic masses.
- **CT:** assessment of the mass itself.
- **MRI:** nature of the mass.

Labs

- TB.
- Sarcoidosis.
- Hematological (lymphoma, leukemia).

FNA

- FNA is **the golden standard** of diagnosis for neck masses If you suspect malignancy.
- 90% of cases it gives true Dx.
- Could have false –ve or false +ve.
- Differentiate btw inflammatory & neoplastic masses.





NECK ABSCESS

In acute bacterial infection there may be suppuration in the nodes of the neck to form a painful abscess.

Treatment is that of the primary condition e.g. acute tonsillitis, infectious mononucleosis.

THYROGLOSSAL CYST

- Fibrous cyst that forms from a persistent thyroglossal duct.
- **Most common congenital neck mass**
- Childhood
- **Midline mass:** between the isthmus of thyroid and the hyoid bone or just above the hyoid bone.
- **Elevated with tongue protrusion**
- **Painless (if infected → painful)**
- Smooth and cystic

Presentations:

- Dysphagia.
- Breathing difficulty.
- Dyspepsia especially if large mass.



Rx:

- **Sistrunk procedure:** Total excision with excision of the central part of hyoid bone to avoid recurrence.

BRANCHIAL CYST

- Remnants of embryonic development
- Result from failure of obliteration of the branchial cleft
- Cystic mass
- Develops under the skin between SCM & pharynx.

Presentation:

- **Asymptomatic (mostly)**
- **Painful if become infected.**

Rx:

- Surgical excision
- Complete surgical excision may be difficult, so they can recur.





DERMOID CYST

- Cystic teratoma
- Contains mature skin complete with hair follicles and sweat gland. sometimes clumps of hair, and often pockets of sebum, blood, fat, bone, nail, cartilage and thyroid tissue .
- **Almost always benign and rarely malignant.**
- **The rare malignant dermoid cyst usually develops SCC in adults; in infants and children it usually develops an endodermal sinus tumor.**
- **Midline mass that does not move with protruding the tongue.**
- **Solid or hard in consistency.**
- Usually limited to the skin.

Rx:

- Complete surgical removal.

INFLAMMATORY LUMPS

Acute Inflammation:

- URTI
- Ears
- Tonsils
- Cat scratch disease (*Bartonella henselae*).
- Tularemia “Rabbit Fever” (*Francisella tularensis*).

Chronic Inflammation:

- TB (Tuberculous cervical lymphadenitis)
- Sarcoidosis
- Syphilis
- Brucellosis

NEOPLASTIC NECK MASSES

- Benign or malignant

Primary (above clavicle):

- Lymphomas (most common)
- Squamous cell carcinoma of branchial cyst.
- Melanoma
- Rhabdomyosarcoma
- Present late and the only presentation could be lymphadenopathy.

Secondary: below clavicle (Virchow's node)

- Breast (98%), lung, liver, stomach, prostate.
- Above clavicle → advanced stage of tumor.

PRIMARY-BENIGN

- Any structure may be involved.
- Skin, SC Tissue, fat, nerve, muscle, vessel.
- Lipoma, fibroma, haemangioma, neuroma.
- Salivary Glands: Pleomorphic adenoma, Wharthin's tumor.
- Thyroid: Multinodular goiter, cyst, adenoma.

PRIMARY-MALIGNANT

- **Salivary Glands.**
- **Thyroid Gland.**
- **Lymph Nodes: Lymphoma.**
- **Sarcoma.**

CAROTID BODY TUMOR(PARAGANGLIOMA)

- rare neuroendocrine neoplasm originates from paraganglia in chromaffin-negative glomus cell derived from the embryonic neural crest functioning as part of the sympathetic nervous system (chemoreceptors).
- Located at the **adventitia** of the common carotid artery bifurcation.
- It usually presents as a painless neck mass, but larger tumors may cause cranial nerve palsies, usually of the **VAGUS NERVE** and **HYPOGLOSSAL NERVE**.
- Rarely, a malignant neuroblastoma may originate from the carotid body.

