NECK MASSES
Congenital
  • Midline
    • Thyroglossal cyst
    • Dermoid cyst
  • Lateral
    • Branchial cyst

Acquired
  • Inflammatory
  • Neoplastic
  • Traumatic (hematoma)
**Approach**

**History**

- **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

• 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 .

• 3. Percussion :
  • for retrosternal extension of the thyroid

• 4. Auscultation
  • for bruits
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 ABCESS

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
• Rabdomyosarcoma
• 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.