PBL-X

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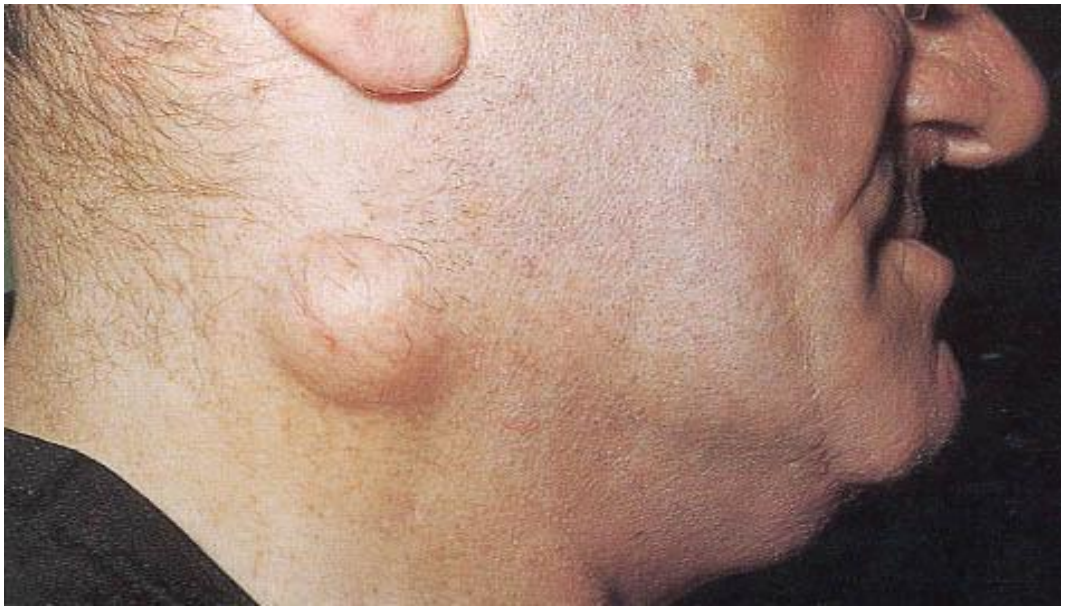
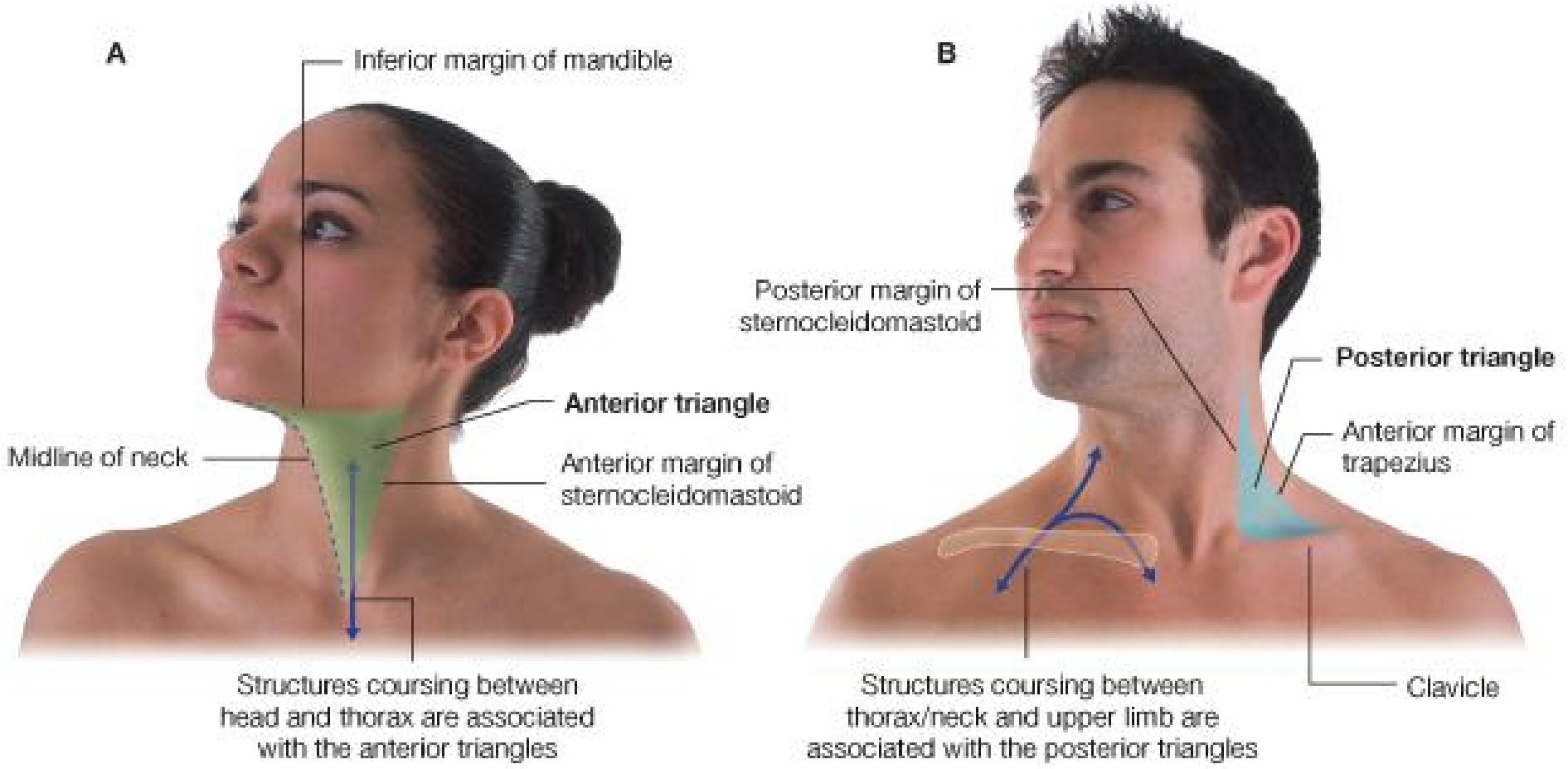
Neck Lump




A
Inferior margin of mandible
Anterior triangle
Midline of neck
Anterior margin of sternocleidomastoid
Structures coursing between head and thorax are associated with the anterior triangles
B
Posterior margin of sternocleidomastoid
Posterior triangle
Anterior margin of trapezius
Clavicle
Structures coursing between thorax/neck and upper limb are associated with the posterior triangles

Classification

By Site

- Midline neck lumps
- Lateral neck lumps
- Supraclavicular neck lumps

Midline neck lumps

- Thyroid
- Thyroglossal cyst
- Lymph node
- Dermoid

Lateral neck lumps

- Lymph node
- Branchial cyst
- Submandibular gland
- Parotid
- Glomus tumours
- Carotid body tumours

Supraclavicular lumps

- Lymph nodes
- Usually from below the clavicle

By Etiology

- Congenital neck lumps
- Inflammatory neck lumps
- Neoplastic neck lumps

Congenital neck masses

1. Thyroglossal Cyst (most common)
2. Branchial Cyst.
3. Dermoid.
4. Hamartoma.
5. Teratoma.
6. Lipoma.
7. Laryngocele.
8. Diverticulum.
9. Cystic Hygroma.

THYROGLOSSAL CYST

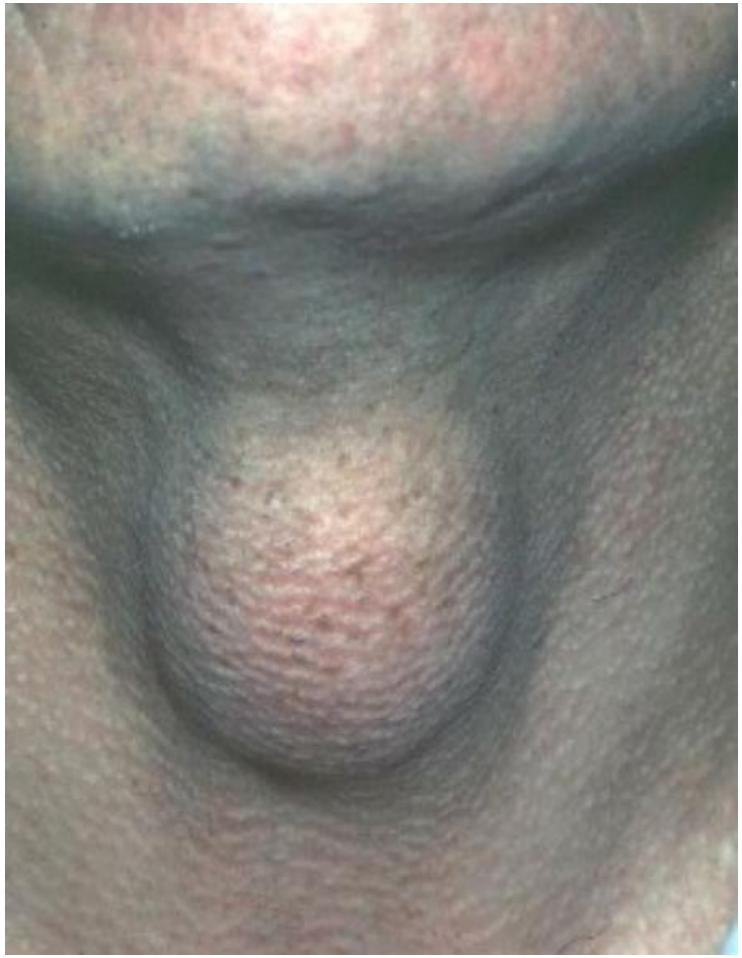
- Fibrous cyst that forms from a persistent thyroglossal duct
- Most common congenital neck mass
- Childhood
- Midline mass
- Elevated with tongue protrusion
- Painless (if infected **à** painfull)
- Smooth and cystic

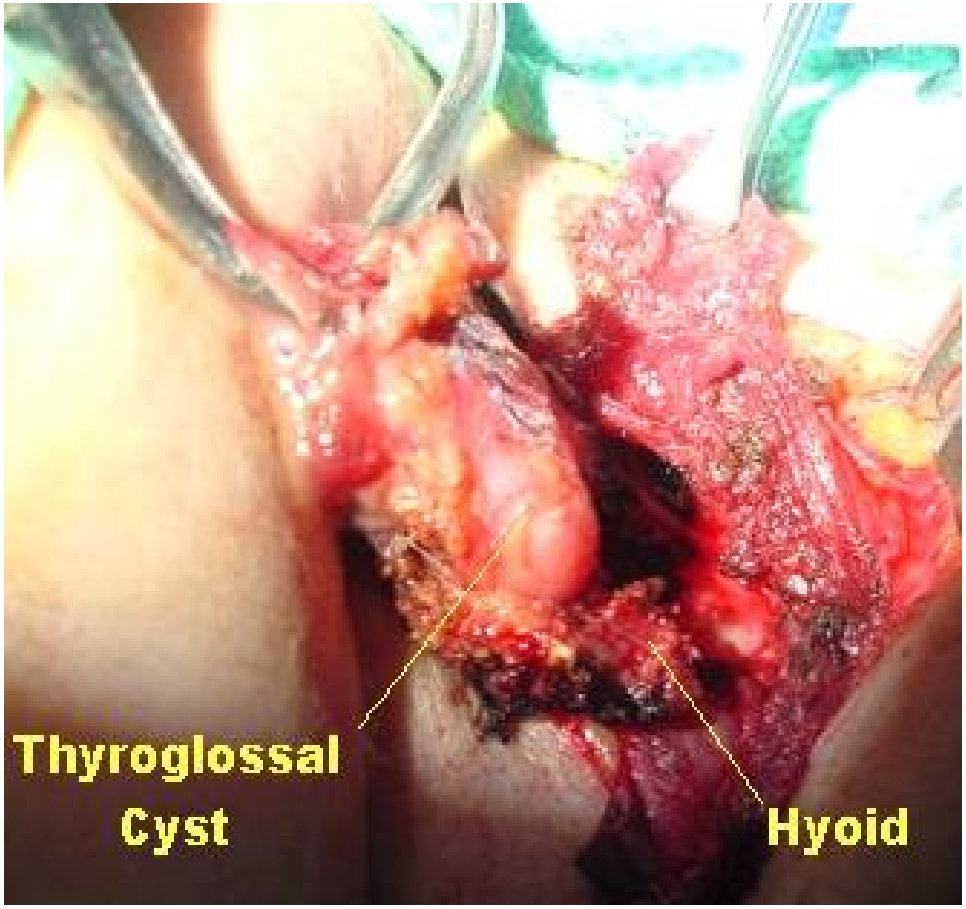
Presentations:

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

Rx:

- Total resection with central part of hyoid bone to avoid recurrence.




Thyroglossal
Cyst
Hyoid

Branchial Cyst

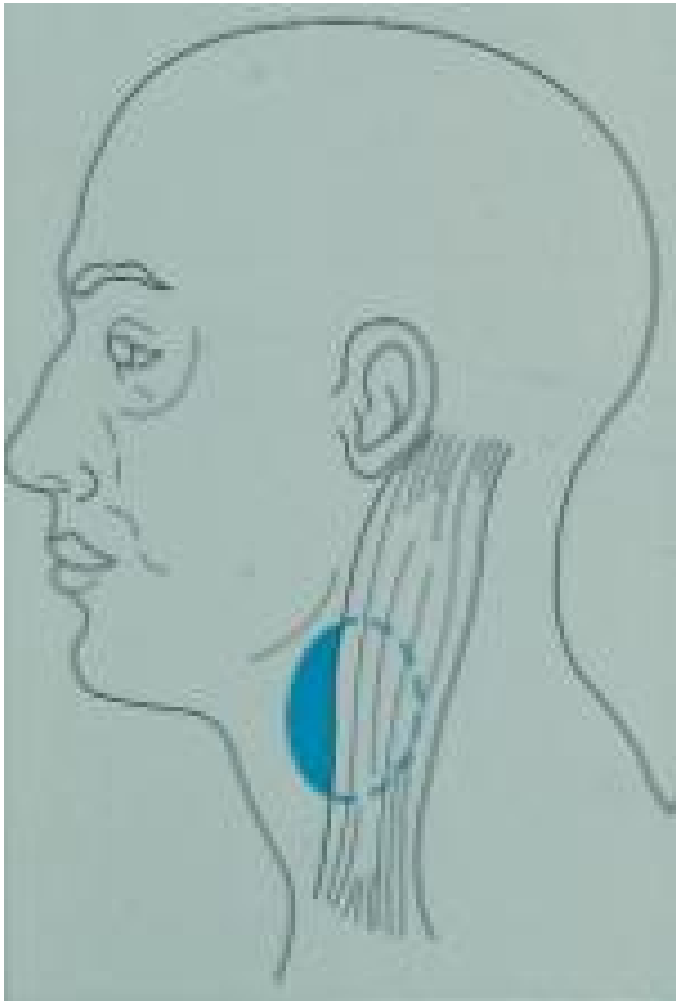
- Remnants of embryonic development
- Result from failure of obliteration of the branchial cleft
- Cystic mass
- Develops under the skin between SCM & pharynx.

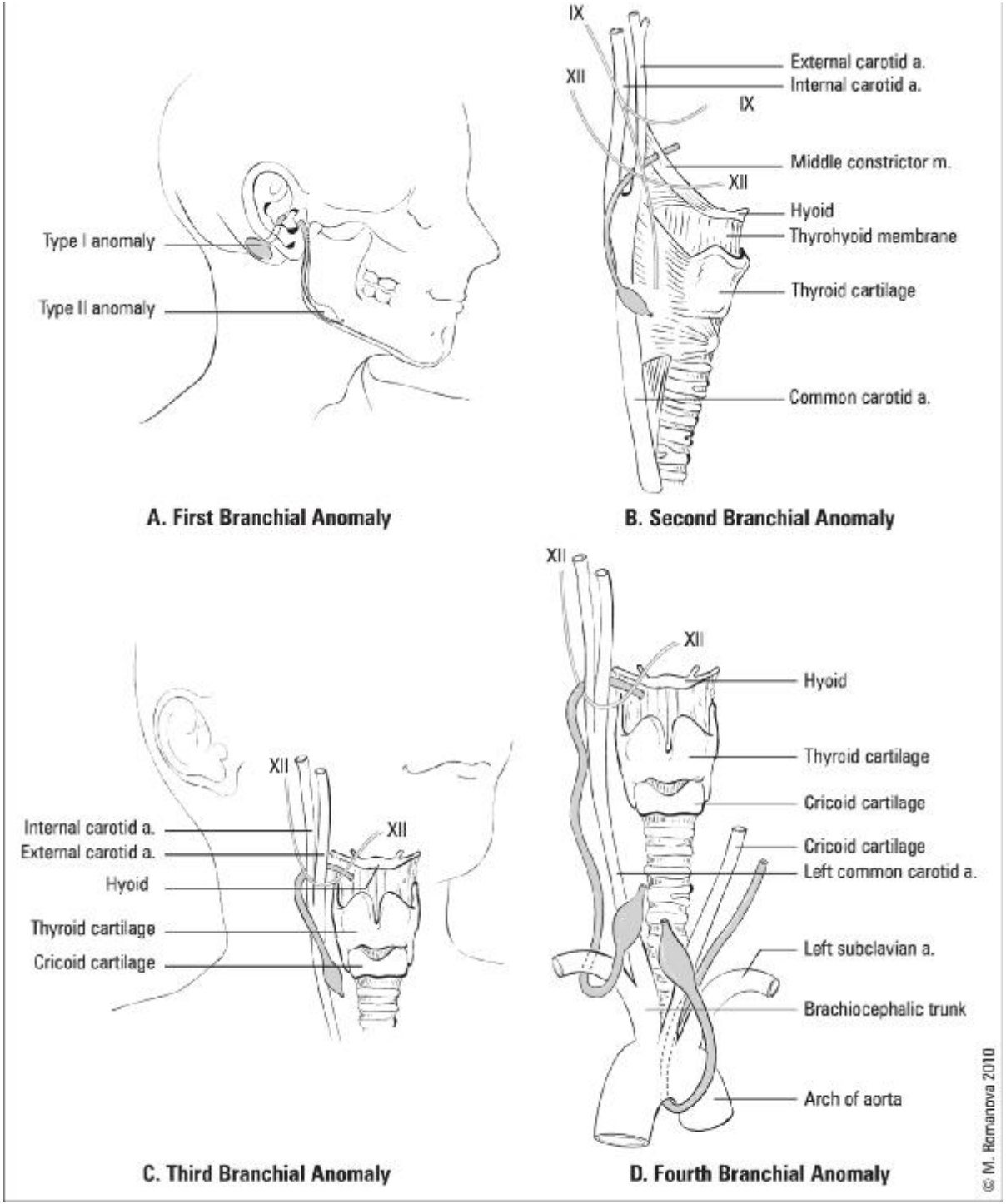
Presentation:

- Asymptomatic (mostly)
- Painful if become infected.

Rx:

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




Type I anomaly
Type II anomaly
A. First Branchial Anomaly
IX
XII
IX
External carotid a.
Internal carotid a.
Middle constrictor m.
XII
Hyoid
Thyrohyoid membrane
Thyroid cartilage
Common carotid a.
B. Second Branchial Anomaly
XII
Internal carotid a.
External carotid a.
Hyoid
Thyroid cartilage
Cricoid cartilage
XII
C. Third Branchial Anomaly
XII
XII
Hyoid
Thyroid cartilage
Cricoid cartilage
Cricoid cartilage
Left common carotid a.
Left subclavian a.
Brachiocephalic trunk
Arch of aorta
D. Fourth Branchial Anomaly
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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.
- Almost always benign and rarely malignant.
- Midline mass
- Not move with protruding the tongue
- Solid or hard in consistency.
- Usually limitted to the skin

Rx:

- Complete surgical removal.

Ranula

- Cystic swelling floor of mouth
- Mucous extravasation from sublingual salivary gland
- Plunging Ranula, extend through FOM muscles into neck

Inflammatory lumps

Acute inflammation:

- URTI
- Ears
- Tonsils

Chronic inflammation:

- TB
- Sarcoidosis
- Syphilis
- Brucillosis

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 **à** advanced stage of tumor.

Investigations

Investigations

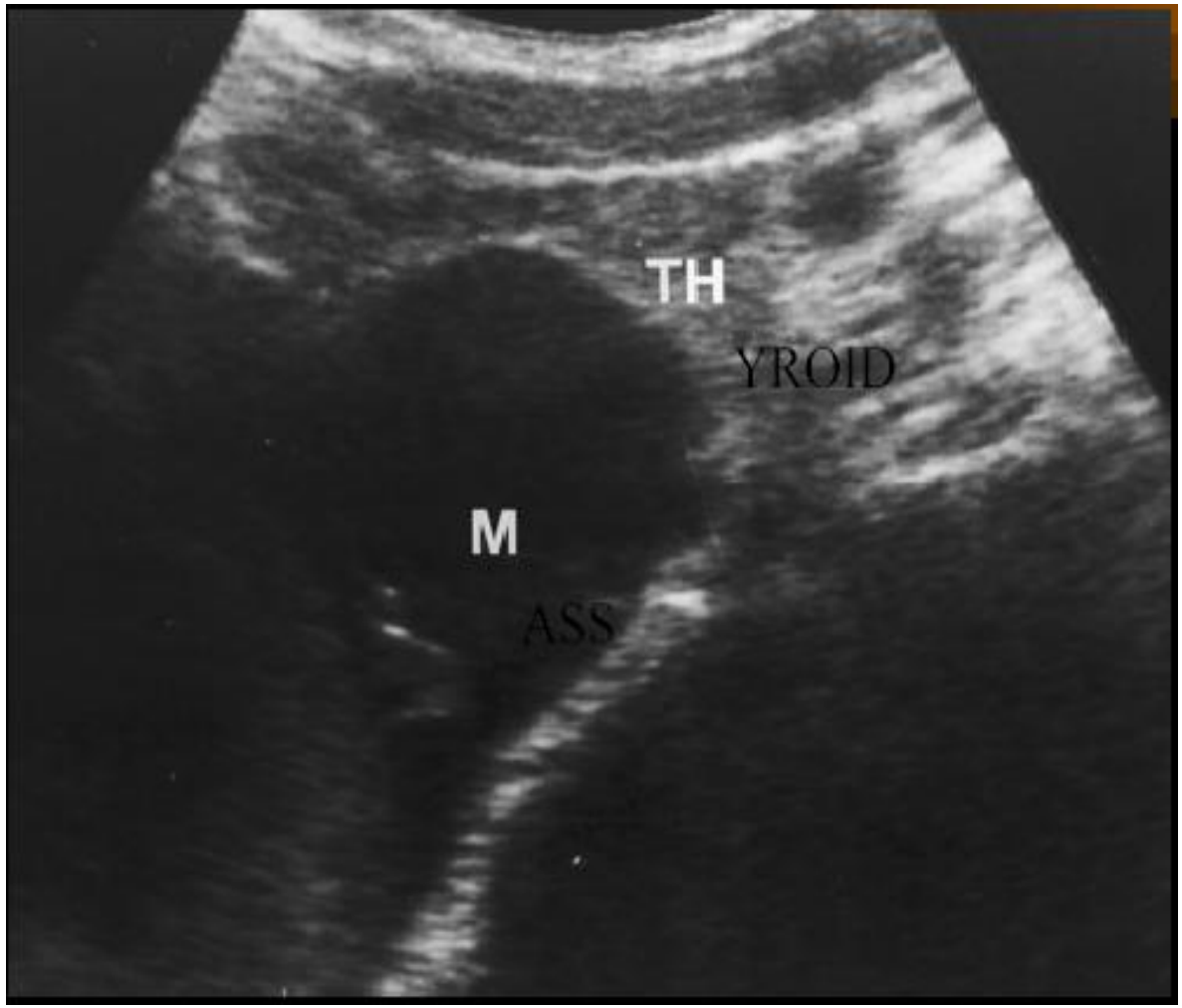
Types of investigation:

1. Radiological
2. Labs
3. Endoscopy & biopsy
4. FNA (diagnostic)

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

US



CT

Benefits:

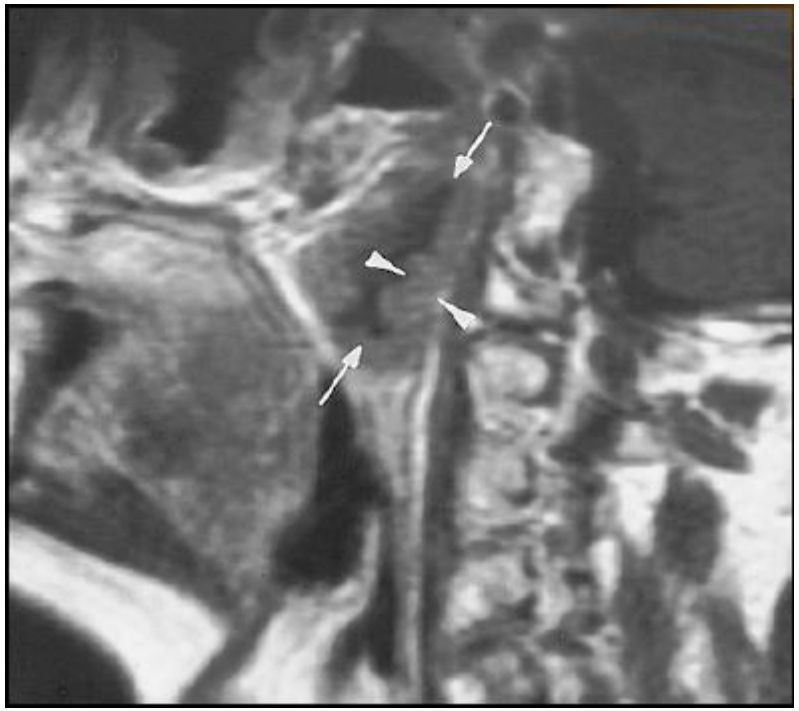
1. Distinguish cystic from solid lesions.
2. Define the origin and full extent of deep, ill-defined masses.
3. When used with contrast can delineate vascularity or blood flow.
4. Detect an unknown primary lesion.
5. To help with staging purposes.

Signs of metastatic carcinoma

- Lucent changes within nodes
- Size larger than 1.5cm
- Loss of sharpness of nodal borders are often.

MRI

- Provides much of the same information as CT.
- It is currently better for upper neck and skull base masses due to motion artifact on CT.
- With contrast it is good for vascular delineation and may even substitute for arteriography in the pulsatile mass or mass with a bruit or thrill.



Labs

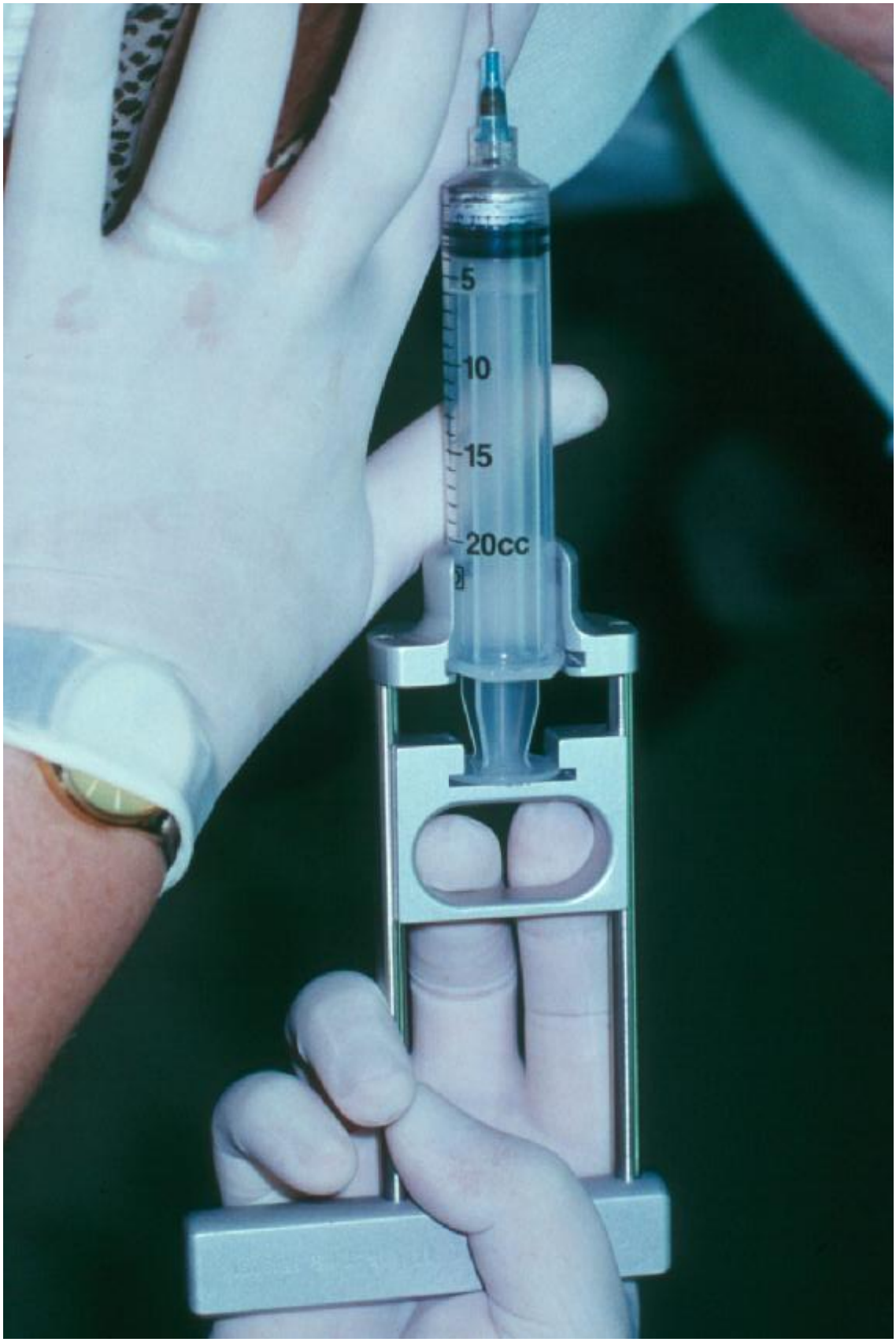
- TB
- Sarcoidosis
- Hematological (lymphoma, leukemia)

Endoscopy & Biopsy

- Fibro-optic or rigid endoscopy
- Nose-larynx-pharynx-esophagus-mouth.
- Take biopsy:
  - If u cannot find the primary lesion in the neck, take Bx from suspected places.
    - Base of the tongue.
    - Tonsils.
    - Nasopharynx.
    - Pyriform fossa.
    - Supraglottic.

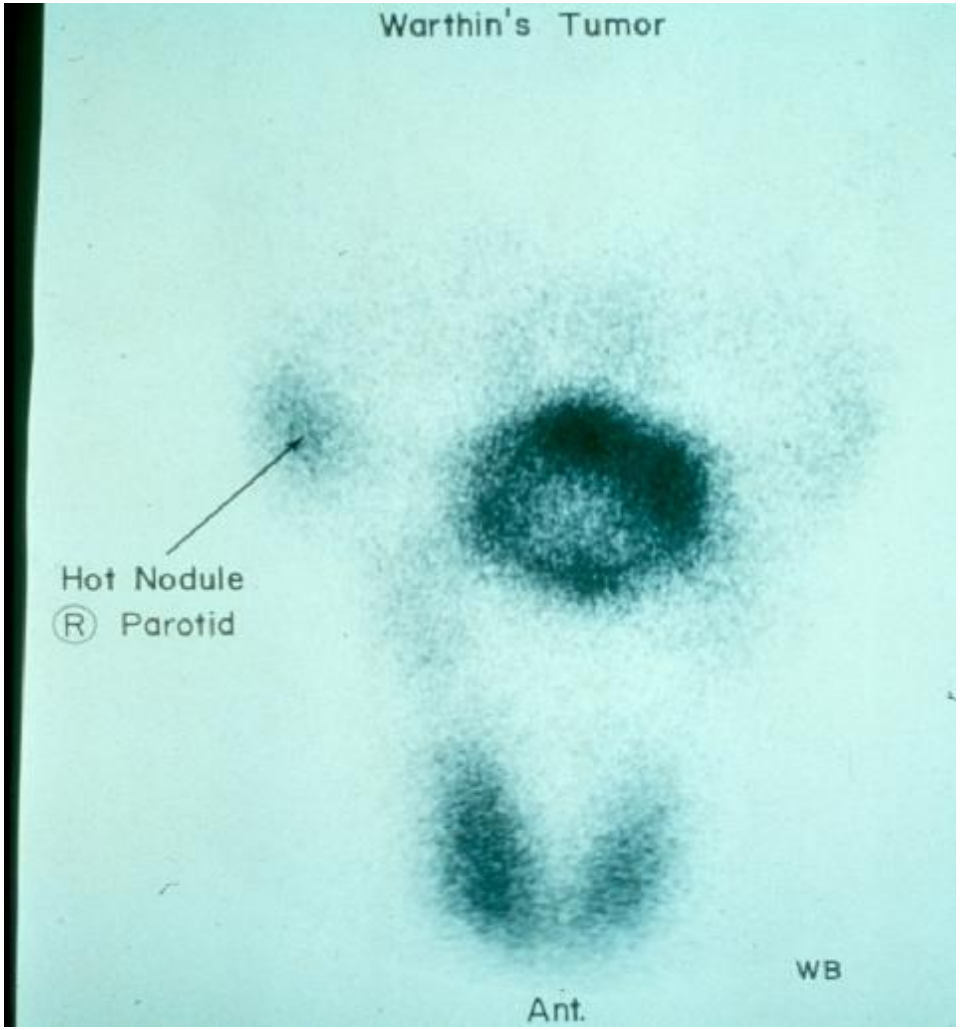
FNA

- FNAB is the STANDARD of diagnosis for neck masses If u suspect malignancy.
- 90% of cases it gives true Dx.
- Could have false –ve or false +ve.
- Differentiate btw inflammatory & neoplastic masses.


5
10
15
20cc

RADIONUCLEOTIDE SCANNING

- Differentiate a mass from within or outside a glandular structure.
- Also indicate the functionality of the mass.
- Important for salivary and suspected thyroid gland masses.



Management


Adult patient presenting with neck mass
Diagnosis suggested by history and physical examination
Congenital anomaly
Inflammatory or infectious condition
Neoplasm (also based on consideration of risk factors, including age >45 years)
CT (contrast medium optional)
Excisional biopsy
Single course of broad-spectrum antibiotic; close follow-up for 2 to 4 weeks
Contrast-enhanced CT scan and fine-needle aspiration biopsy
Subspecialist consultation for endoscopy
Management based on histology and stage
Clinical improvement
No clinical improvement or progression of neck mass
Observation; reassessment in 2 to 4 weeks
Chest radiograph and PPD tuberculin skin test
Positive PPD test
Negative PPD test or findings suggestive of neoplasm
Treatment or subspecialist consultation
Contrast-enhanced CT scan and fine-needle aspiration biopsy
Subspecialist consultation

Thanks