4- Carotid triangle

Objectives

By the end of this lab students are expected to be able to

1. **Describe the boundaries, roof, floor and content of the triangle**
2. **Discuss the carotid sheath regarding its formation, extension, and content**
3. **Compare the different courses of internal & external carotid arteries**
4. **List the branches of external carotid artery**
5. **Describe the site, vertebral level, function of carotid sinus**
6. **Identify the three cranial nerves found in the triangle**
7. **Identify the roots, loop and branches of ansa cervicalis**

➢ Boundaries

- Superiorly: Posterior belly of digastric supplemented by stylohyoid.
- Antero-inferiorly: Superior belly of omohyoid.
- Posteriorly: Anterior border of sternocleidomastoid.

➢ Contents

1. Carotid sheath containing
   - I. Carotid arteries
     - (a) Common carotid artery (Carotid sinus and body)
     - (b) Internal carotid artery
     - (c) External carotid artery (ECA).
   - II. Internal jugular vein.
   - III. three cranial nerves
     - (a) Vagus (X)
     - (b) Spinal accessory (XI)
     - (c) Hypoglossal (XII)
2. Ansa cervicalis.
3. Cervical part of the sympathetic chain.
4. Deep cervical lymph nodes (along the internal jugular vein)

Note: Common carotid artery, divides into external and internal carotid arteries at the level of the upper border of the thyroid cartilage (C4).

Note: The common carotid artery can be compressed against the prominent anterior tubercle of transverse process of the 6th cervical vertebra called carotid tubercle.

Home work:

Q1: A working man started to suffer from sudden attacks of syncope on rotation of head especially when wearing a shirt with tight collar or a tie with tight knot. The doctor suspects a diseased Carotid sinus.

1- Where the sinus is located?

2- At which vertebral level it lie?

3- It seems that applying pressure on this sinus causes syncope, how?

Q2: In the figure below, identify the following branches of external carotid artery
A- Superior thyroid artery
B- Lingual artery
C- Facial artery
D- Occipital artery
E- Superficial temporal artery
F- Maxillary artery