الموضوع الرئيسي

	Common Carotid Artery	External Carotid Artery	INTERNAL CAROTID ARTERY (I. C. A)
Beginning	the right arises from the brachiocephalic trunk behind the right sternoclavicular joint. The left arises directly from the arch of aorta in the superior mediastinum of thorax.	It begins at the level of the upper border of thyroid cartilage.	at the upper border of thyroid cartilage (disc between C3 & C4)
End	at the level of the upper border of thyroid cartilage (disk between c3&c4) by dividing into internal and external carotid arteries.	It ends behind the neck of mandible inside the substance of parotid gland by dividing into superficial temporal and maxillary arteries.	below the base of the brain in the cranial cavity by dividing into anterior and middle cerebral arteries.
Note	At its end (or beginning of internal carotid) there is a dilatation called carotid sinus which is sensitive to blood pressure changes.	is crossed by the posterior belly of digastric and stylohyoid muscles. ascends anteromedial to internal carotid artery outside carotid sheath.	The ICA has bends that damp down the pulsation and give more a regular stream of blood for brain

الموضوع الرئيسي

Relations

Common Carotid Artery

- Anterolateral relations
  - Ms
    - sternocleidomastoid
    - sternohyoid
    - sternothyroid
    - superior belly of omohyoid
  - thyroid gland.
- Posterior relation
  - Vertbral
    - Transverse processes of lower 4 cervical vertebra
    - prevertebral muscles
    - vertebral artery
    - sympathetic trunk.
  - Inferior thyroid artery
- Medial relations
  - larynx — trachea
  - pharynx — esophagus
- Lateral relation(اصحابه)
  - Internal jugular vein
  - Posterolaterally) vagus nerve

External Carotid Artery

- Superficial relation
  - Ms
    - Sternomastoid
    - posterior belly of digastric
    - pass along its upper border.
    - stylohyoid muscles
  - veins
    - Lingual
    - common facial veins
  - crosses medially below posterior belly of digastric muscle.
  - nerve — Hypoglossal
  - Parotid gland With
    - retromandibular vein
    - facial nerve
- Deep relations
  - Pharynx
  - ICA
  - between ICA and ECA:
    - Styloid process
      - styloglossus
      - stylopharyngeus
    - Nerves
      - Glossopharyngeal
      - pharyngeal branch of vagus.
    - Part of parotid gland

INTERNAL CAROTID ARTERY

- Cervical part
  - Superficial relations
    - External carotid artery.
    - between ECA and ICA
  - Deep relations
    - Superior laryngeal nerve
    - constrictors of the pharynx.
- Petrous part
- Cavernous part:
  - laterally — Abducent nerve (6th cranial nerve)
  - medially — body of the sphenoid inside the sinus.

الموضوع الرئيسي

	Common Carotid Artery	External Carotid Artery	INTERNAL CAROTID ARTERY
Course	It ascends in the neck, enclosed in the carotid sheath with internal jugular vein and vagus nerve.	It ascends anteromedial to internal carotid artery outside carotid sheath.	Cervical part: ascends inside the carotid sheath; sympathetic chain posterior to it.; At the base of the skull: ICA lies anterior to the IJV with the lower 4 cranial nerves in between.
			Petrous part: The artery runs upwards in carotid foramen; passes forwards and medially in the carotid canal; reach the foramen lacerum; passes upwards in the foramen lacerum to enter the cavernous sinus.
		crossed by the posterior belly of digastric and stylohyoid muscles.	Cavernous part: Inside the cavernous sinus; artery runs in a sinuous course — upwards, then forwards and finally upwards); leaves the sinus through its roof.
			Cerebral part: After leaving the roof of cavernous sinus; artery ends just below the anterior perforated substance of the base of the brain by dividing into its two terminal branches (anterior & middle cerebral arteries) .

الموضوع الرئيسي

	Common Carotid Artery CCA	External Carotid Artery	INTERNAL CAROTID ARTERY
Branchs	dividing into internal and external carotid arteries.	branch from its medial side: — Ascending pharyngeal artery — ascends along the wall of the pharynx supplying it.	Cervical part: — no branches in the neck.
		branches from its front: — Superior thyroid artery. — passes deep to sternohyoid and sternothyroid muscles to reach thyroid gland Lingual artery. — arises opposite the tip of the greater cornu of hyoid bone it forms S-shaped course to reach the tongue. Facial artery. — arises just above the tip of greater cornu of hyoid bone, winds around lower border of mandible to reach the face.	petrous part — Caroticotympanic artery to the middle ear cavity Artery of pterygoid canal to the pharynx.
		branches from its posterior side: — Occipital artery. — pierces the trapezius muscle one inch lateral to the external occipital protuberance to supply the scalp. Posterior auricular. — supply The posterior surface of the auricle and scalp behind the auricle.	cavernous part — Cavernous branches. inferior hypophyseal artery to posterior lobe of pituitary gland.
		terminal branches: — Superficial temporal artery. Maxillary artery.	cerebral part — Ophthalmic artery. Anterior choroidal artery. Posterior communicating artery. Middle cerebral artery. Anterior cerebral artery.