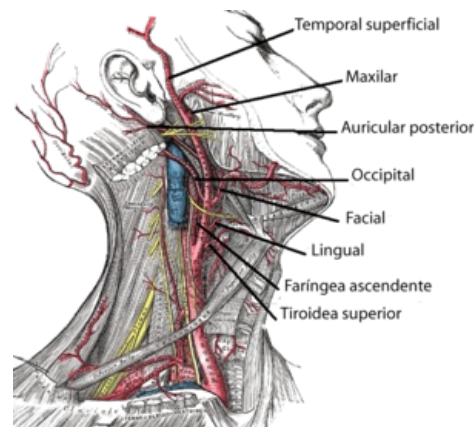


External carotid artery

A. carotis externa is one of the main arterial branches of the body, which, in addition to the brain itself, ***supplies the head, most of the organs and muscles of the front of the neck, and partly also the neck muscles*** . It arises in the **trigonum caroticum** as a ventromedial branch of the a. carotis communis, which emerges from the aortic arch on the left and the brachiocephalicus truncus on the right. A. carotis externa first runs together with the a. carotis interna, v. jugularis interna and n. vagus in Cervical nerve-vascular bundle, but at the mandibular angle it separates and passes into the prestyloid space. Behind the angulus mandibulae it breaks down into its final branches.

A. carotis externa unlike a. carotis interna divides into its branches already on the neck and can be distinguished into typical ***ventral, dorsal, medial and terminal branches***.



Branches of A. carotis externa

Ventral branches

In caudocranial order:

a. thyroidea superior

It is the first of the branches of the external carotid artery and resigns immediately after the a. Carotis communis separates on both carotid arteries. After a break, it descends in an arc to the upper and anterior edges of the thyroid gland, which it supplies together with the muscles and mucous membrane of the larynx. It is also involved in the nutrition of infrahyoid muscles.

a. lingualis

It departs cranially from the large corners of the tongue (where it can also be found in the so-called Beclard angle , or Pirogow's triangle) and accompanies m. hyoglossus into the tongue. It is involved in the supply of the tongue and the lower part of the oral cavity.

a. facialis

It is the most important facial artery. After a break, it goes to the trigonum submandibulare (underlaid by the stylohyoid muscle and the posterior abdomen by the digastricus muscle), where it runs behind the submandibular gland, or taken into it, it runs over the edge of the mandible, ventrally from the grip of the m. masseter, here its pulsation is palpable, and it continues in a noticeably wound course around the corner of the mouth, nose to the corner of the eye. Its **a. palatina ascendens** supplies the palate with the palate of the tonsils and part of the pharynx, **aa. labiales sup. et inf.** upper and lower lip.

TA	A12.2.05.001
He withdraws from	a. common carotid artery
Branches	a. thyroidea sup., a. lingualis, a. facialis , a. occipitalis, a. auricularis posterior, a. pharyngea ascendens
Final branches	a. maxillaris, a. temporalis superficialis

Dorsal branches

a. occipitalis

It is more caudal of the dorsal branches. During its course behind the posterior abdomen of the digastricum, it releases branches for the sternocleidomastoid muscle, digastricus and cervical muscles. It also takes place in the sulcus arteriae occipitalis on the petrosus axis and further on the calva. It is involved in supplying the skull covers in the occipital area, the auricle and the dura mater in the posterior cranial pit.

a. auricularis posterior

Supplies the auricle, the adjacent part of the soft skull cover, the cellulae mastoideae and part of the glandula parotis

Medial branches

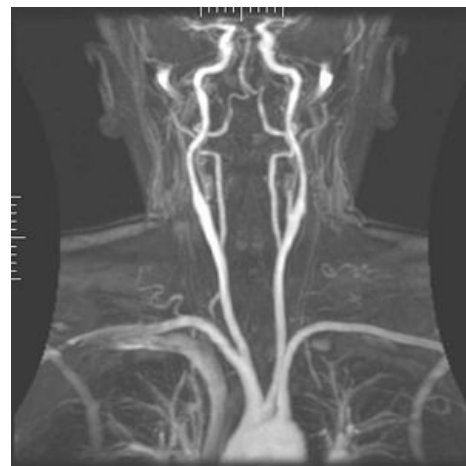
a. pharyngea ascendens

It is the only medial branch of the external carotid artery, resigning at its beginning and running cranially along the pharynx to the base of the skull. From there it continues to the dura mater in the posterior cranial fossa and to the inner ear.

Terminal branches

a. maxillaris

It is the largest branch of the external carotid artery and according to its course can be divided into **pars mandibularis** (in the area behind the mandible neck in the art. temporomandibularis, or jaw joint), **pars pterygoidea** (between m. pterygoideus medialis et lateralis in fossa infratemporalis) and **pars pterygopalatina** (in the fossa of the same name).



Magnetic resonance angiography

- The branches of the **pars mandibularis** are involved, among other things, in the supply of the middle ear and jaw joint. The most important branches of this section are:
 - **a. meningea media**, which after passing through the foramen spinosum takes place in the epidural space and supplies the dura mater of the middle cranial fossa.
 - **a. alveolaris inferior** runs in the canalis mandibulae and releases branches for the teeth of the mandible and the skin and muscles in the chin area.
- **Pars pterygoidea** supplies the masticatory muscles (aa. temporales profundae, a. masseterica, rr. pterygoidei) and m. buccinator
- **Pars pterygopalatina** is involved in supplying facial structures through:
 - **a. infraorbitalis** for upper incisors, canines and facial area at foramen infraorbitale (a. infraorbitalis opouští fossa pterygopalatina through fissura orbitalis inf.)
 - **a. alveolaris superior posterior** for upper molars and premolars
 - **a. palatina descendens** for the soft and hard floor, which descends into the canalis palatinus maior and divides into a. palatina maior et aa. palatinae minores
 - **a. sphenopalatina** for the nasal mucosa (passes through the foramen sphenopalatinum))

a. temporalis superficialis

It represents a thinner final branch of the external carotid artery, rising in the cranial direction covered by the cervical neck and further through the parotid gland. It passes through the zygomatic arcus in front of the auricle, where its pulse is palpable, and then branches out in the temporal landscape. It supplies the parotid gland, the anterior part of the auricle, the m. temporalis and the soft skull cover in the temporal landscape and in the zygomaticoorbitalis region.

Links

Related articles

- Aorta
- Arteria carotis interna
- Arteria carotis communis
- Cervical nerve-vascular bundle

External links

- HORKÝ, Drahomír – NOVÁKOVÁ, Květoslava. *Morfologie orofaciálního systému pro studenty zubního lékařství* [online] . 2. edition. 2011. Available from <<https://mefanet.upol.cz/clanky.php?aid=58>>. ISBN 978-80-244-2702-7.

References

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