Upper limb blood vessels

Arteries

Axillary artery

The axillary artery is a continuation of the *subclavian artery* from the lateral edge of the 1st rib. It also runs through the axilla to the medial endge of the collum chirurgicum humeri. From there it continues as the *brachial artery*.

It supplies the muscles around fossa axilaris, infraspinatus muscle, deltoid muscle , two of the first ribs, shoulder joint, skin and part of the breast.

Brachial artery

Brachial artery is a continuation of *axillary artery* from collum chirurgicum humeri. It takes place in the anterior osteofacial space of the arm in the *sulcus bicipitalis medialis*.

It creates very strong branch **deep brachial artery also known as arteria profunda brachii**, which accompanies the *radial nerve* in the *sulcus nervi radialis* , between the heads of the m. triceps brachii . It also produces **collateral ulnar arteries (superior and inferior)**.

On the anterior side of the cubital region in the *fossa cubitalis* at collum radii is brachial artery divided into *radial artery* and *ulnar artery*. They supplie the arm and the elbow joint.

Upper limb arteries

Radial artery

The radial artery descends from the division of the brachial artery along the radial side. To the wrist, between the *brachioradialis muscle* and the *flexor carpi radialis muscle*, its pulse is palpable there. We find it also in the *foveola radialis*. After crossing the carp, it runs to the dorsal part of the hand, where it enters *Guiot space* between the heads of the *interosseus dorsalis primus muscle* and forms the **arcus palmaris profundus**.
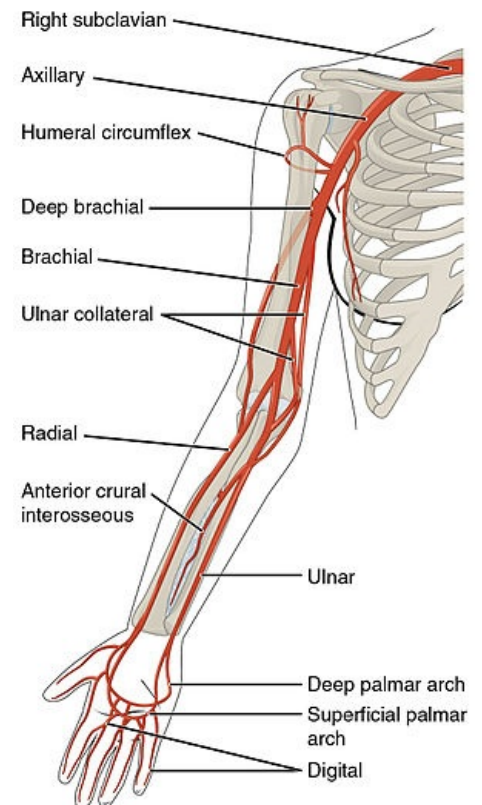
It creates **ramus palmaris superficialis** which is involves in **arcus palmaris superficialis**, brancehs for *rete carpi palmare* and *dorsale* and **princeps pollicis artery**. It supplies the muscles of the anterior and lateral groups and the skin in the lateral half of the forearms. It participates in the supply of the palm, back of the hand and fingers.

Ulnar artery

Ulnar artery descends from the division of the brachial artery under the ulnar commune between *the flexor carpi ulnaris muscle* and *the flexor digitorum superficialis muscle*.

It produces the arteria interossea communis, which is then divided into the a. interossea anterior, posterior and arteria commitans nervi mediani (the main artery of the limb during the development). It also sends branches for rete carpi palmare and dorsale, passes through the *canalis ulnaris* (Guyon's canal), creates **rammus palmaris profundus** which leads into **arcus palmaris profundus** and creates **arcus palmaris superficialis**.

It supplies the muscles of the anterior and dorsal groups, the *supinator muscle*, the palm, the back of the hand and fingers and the skin in the medial half of the forearm.

Veins

Surface veins

The superficial veins pass from the fingers and palm to the back of the hand. The **rete venosum dorsale manus** is formed on the back of the hand and the **rete carpi dorsale** in the wrist area. The **cephalica vein** and the **basilica vein** arise from the rete venosum dorsale manus.

Vena cephalica

The cephalica vein passes to the lateral side of the forearm and continues to the elbow landscape along the fascia, to the anterolateral side of the arm and into the *fossa ovalis infraclavicularis (Mohrenheimi)* and then into the *clavipectorale trigonum* enters the axilla and it flows into the *axillary vein*.

Vena basilica

The basilica vein passes to the medial side of the forearm, in the lower half of the arm below the superficial fascia through the *basilicus hiatus*, and flows into the *brachial vein*.

Deep veins

The deep veins accompany the arteries of the same name (up to the axillary vein, the veins are doubled).

- **vv. digitales palmares** and **vv. metacarpales dorsales**
- **vv. radiales**
- **vv. ulnares**
- **vv. brachiales**

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Reference

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