

Surgery of the arteries supplying the upper limbs

The main **arteries** supplying the upper limbs are a. axillaris, a. brachialis, a. radialis, and a. ulnaris.

Ischemia HK

Ischemia is generally a local lack of blood supply to a tissue or an organ, which can lead to its damage and eventually death of the organ - tissue necrosis. Ischemia is primarily caused by a lack of oxygen (so-called hypoxia), followed by a lack of nutrients and the accumulation of harmful substances - waste products.

 For more information see *Ischémie*.

Acute

- The source is emboly in the arteries of the upper limbs: ** proximal (a. subclavia, axillaris, brachialis) – source in L heart;
 - distal (to the finger arteries) – the source of the bulge on the subclavian artery, or on the intrathoracic branches of the aorta.

Chronic

- **Obliterative:**
 - atherosclerosis – changes to the axillo-brachial level;
 - mediocalcinosis – smaller arteries, in diabetics;
 - arteritis – Burger's disease (arteries of fingers and hand), Takayasu's arteritis (subclavian artery);
 - postradiation arteritis – subclavian artery after radiation for mammary carcinoma;
 - thoracic outlet syndrome.
- **Neo-obliteration:**
 - Raynaud's disease (vasospasms of finger arteries without a known cause) and Raynaud's phenomenon (known cause - collagenosis, arteritis).

Raynaud's syndrome

- Causes – collagenosis (skleroderma, SLE) and various arteritis.
- It requires complex serology – cold agglutinins, rheumatoid factor, complement, ANCA, ...
- Vascular damage is functional without morphological changes, only after years secondary degenerative changes occur (fibrosis of the intima and media, atrophy, ulceration and even gangrene of the fingertips).
- Clinically paroxysmal whitening of the fingertips (vasospastic stage) on exposure to cold, lasting several minutes to hours, followed by cyanosis and swelling of the fingers (vasoparalytic stage).
- Therapy – mainly conservative, protection of hands from cold, gloves, no smoking, nifedipine.

Digital artery occlusion

- In addition to Raynaud's, it can cause Buerger's disease or small emboli.

Neurovascular compression (syndrome (upper thoracic aperture syndrome)

- see below

Links

Related Articles

- Arteries of the upper limb
- Ischemia
- The blood vessels of the upper limb

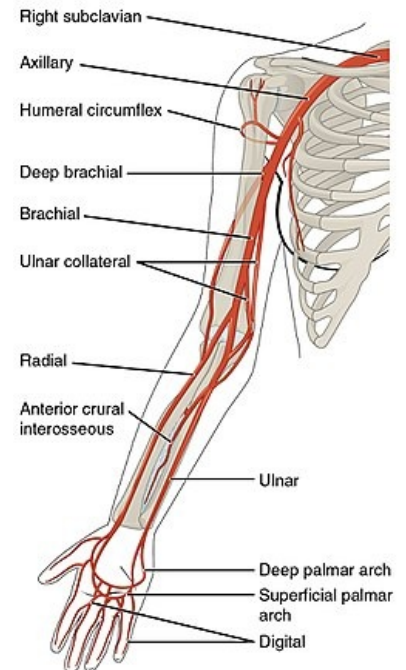


Diagram of the main arteries of the upper limb



Raynaud's syndrome

- Raynaud's disease

External links

- Ischemia (Czech Wikipedia) (<https://cs.wikipedia.org/wiki/Ischemie%7C>)
- Raynaudův syndrom vs. Raynaudova nemoc (<https://www.celostnimedicina.cz/raynauduv-syndrom-a-raynaudova-nemoc.htm%7C>)

References

- ZEMAN, Miroslav, et al. *Speciální chirurgie*. 2. vydání. Praha : Galén, 2006. 575 s. ISBN 80-7262-260-9.

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