

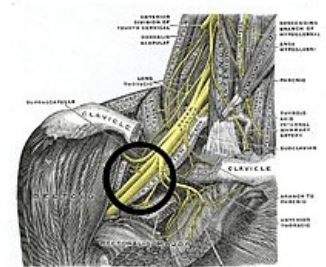
Upper thoracic aperture syndrome

Upper thoracic outlet syndrome (**TOS** = *Thoracic outlet syndrome*) occurs when the subclavian vein and artery + brachial plexus is intermittently compressed in the upper thoracic aperture **between the 1st cervical rib and the surrounding structures**. Compression is facilitated by disruption of the cervical spine, paravertebral muscles, and girdle muscles. Sometimes the vessels can be compressed by the tumor of the apex of the lung. We distinguish three types:

1. **Scalenus syndrome**, when the scalenus anterior muscle and the scalenus medius muscle participate in the oppression during head rotation with the chin raised and during inspiration.
2. **Costoclavicular syndrome** occurs when the chest is turned off and the shoulders are pushed back.
3. **Hyperabduction syndrome** is the most common type, oppression occurs when the upper limb is raised in abduction.

Clinical picture

The syndrome is clinically manifest only in a small part of those affected. There is a feeling of coldness and whiteness of the fingers, Raynaud's syndrome, pain and fatigue of the upper limb when working upright, paresthesia in the upper limb, especially in the fingers, weakening/disappearance of pulsations in the arteries of the upper limb + murmur in the subclavian region (only in certain positions), trophic skin changes on the tips of the fingers (exceptionally in advanced conditions, when mural thrombosis of the subclavian artery and peripheral embolizations have occurred).



Infraklavikulární blok

Diagnostics

- Adson's test - when the head is turned to the side during maximal inspiration, the radial pulse disappears in the scalen syndrome.
- X-ray.

Therapy

The conservative form prevails, i.e. avoiding provoking positions, rehabilitation, treatment similar to Raynaud's syndrome. In severe disorders, the 1st ribs can be resected.

Links

References

- KLENER, P. *Vnitřní lékařství*. 3. edition. prague : Galen, 2006. ISBN 80-7262-430-X.