Bases of Neuropathology

Sensitivity & its disorders. Part IV
PAIN

occurs when receptors, sensitive conductors or centers are irritated.

Pain is characteristic of peripheral nerve damage, the posterior roots of the spinal cord, and the sensory roots of the cranial nerves, the thalamus, and the meninges.
TYPES OF PAIN

- local
- radiating
- phantom
- reflected
LOCAL PAIN

occurs in the area of pain stimulation. Common causes are diseases of the bones, joints, sinuses of the nose
occurs during nerve irritation and are projected into the corresponding skin zone. Example: pain in the forearm and palm in case of elbow nerve injury in the area of elbow joint
PHANTOM PAIN

is unpleasant sensations of burning, itching after amputation, localized in the “amputated” limb segment.
REFLECTED PAIN

pain in certain areas of the skin (Zakharyin-Head’s zones) for diseases of internals.

Example:
the heart corresponds to the segments $C_3-C_4 \& Th_1-\text{Th}_6$,
the stomach - $C_3-C_4 \& \text{Th}_6-\text{Th}_9$,
the intestine - $\text{Th}_{11}-\text{Th}_{12}$,
the bladder - $\text{Th}_{11}-\text{L}_2 \& S_3-S_4$
ZAKHARYIN-HEAD’S ZONES
SYNDROMES OF SENSITIVE PATH LESION

➤ peripheral
➤ segmental
➤ conductor
PERIPHERAL SYNDROM OF SENSITIVE PATH LESION

- occurs when peripheral nerves and plexuses are affected
- total hypesthesia or anesthesia
- multiple sensitive paths lesion causes symmetric hypesthesia patterned after "gloves" and "socks"
SEGMENTAL SYNDROM OF SENSITIVE PATH LEISON

- occurs when the posterior roots, horns or sensitive nuclei of the cranial nerves are affected
- all kinds of sensitivity are violated, pain along the spinal root (radicular pain)
- In case of the defeat of the posterior horns - dissociated sensitivity disorder (violated surface sensitivity with intact deep sensitivity)
CONDUCTOR SYNDROM OF SENSITIVE PATH LESION

- occurs below the sensitivity path lesion in the spinal cord
- deep sensitivity is disturbed on the side of the pathological nidus, and the surface sensitivity is on the opposite side