Examination of position, gait and mobility

Examination of position, gait and mobility are part of the overall assessment of the patient's condition. The examination should take place in a calm environment.

Patient position

Active position: the patient can get into any position by himself.

Passive position: the patient needs help in positioning, he is limp.

Forced position: the patient chooses a position that relieves the pain.


Opisthotonus in tetanus

- **Orthopnoic position:** the patient sits on the bed, holding the bed with his hands, thereby engaging the auxiliary respiratory muscles and breathing deeply, which helps with shortness of breath (eg in left-sided heart failure).
- **Position on the side:** the patient with pleuritic disease (pleuritis) lies on the affected side in order to limit breathing movements and thereby painful irritation of the pleura by compression. When there is an effusion in the lungs, he also lies on the diseased side so that the healthy lung can fully ventilate.
- **Supine position:** with irritation of the peritoneum (NPB), the patient is completely immobile and has slightly bent legs. Even a small movement causes severe pain.
- **Prone or kneeling position on 4 limbs** in pancreatic cancer.
- **Head tilted back and flexed limbs** (meningitis)
- **Opisthotonus**: throwing the head back and dorsiflexion of the entire spine, e.g. tetanus, hysteria.

Walk

In the first case, we ask the patient to walk around the room and then we evaluate the posture while walking, synkinesis (cooperation of the upper and lower limbs), walking speed, muscle weakness, limping and other abnormalities. During the second examination, we ask the patient to close his eyes and repeat the movements.


The typical forward stoop and small steps in Parkinsonism

- **Parkinsonian gait:** The patient leans forward, takes small steps with anteflexion, bradykinesia, akinesia, dyskinesis, freezing, hesitation (hesitant gait). It includes walking in Parkinson's disease, after brain inflammation.
- **Ataxic gait**: wobbly and wobbly gait with a wide base (alcohol intoxication), occurs in cerebellar dysfunction, tabes dorsalis and vestibular ataxia.
- **Paretic:** The lower limb is stretched in the knee joint due to the predominance of the extensors and makes an arc-like movement to the side.
  - With limited paresis of the peroneus nerve, the patient is unable to dorsiflex and the tip falls over. With this paresis, the patient is unable to stand on his heels.
  - With paresis of the tibial nerve, walking may appear normal, but the patient will not stand on the heels.
- **Hemiparetic gait:** increased muscle tone of the affected muscles. Characteristic Wernicke-Mann posture. Spastic flexion of the upper limbs with extension contracture of the lower limbs. The affected lower limb traces an arc on the ground.
- **Antalgic walking:** walking with pain caused by loading one limb. Trying to minimize weight transfer to the painful limb.
- **Neurogenic claudication:** pain arising from lumbar spinal stenosis, non-discoid type. The patient assumes a flexed position of the spine, which "stretches" the spinal canal and the pain subsides for a while. The pain also subsides when lying down.
- **Spastic gait:** the spastic limb is stiff, difficult to flex.

Stand

The posture of a healthy person is straight, sure, the gait is flexible and the movements are relaxed.

- **Stand I - spontaneous with eyes open**
  - We evaluate standing astride, overall body posture, involuntary movements or spontaneous deviations to the sides or tendency to fall.

- **Stance II - stand still with eyes open**
  - We evaluate and monitor stability.
- **Stance III - sleeping posture with closed eyes**

A positive Romberg test is if there is a deterioration between standing II and III.

Mobility

- Physiologically: flexible mobility, relaxed movements.
- **Abnormal movements:**
  - tic: uncontrolled rhythmic movements of a group of muscles prevailing in stressful situations and disappearing in sleep.
    - example: cheek muscle twitch, eye closing, corner movement
  - shaking (tremor): unwanted rhythmic movement affecting the limbs, head and eyelids:
    1. parkinsonian tremor (it is at rest, gets better with movement; it affects the fingers, hands, forearms and head);
    2. tremor in multiple sclerosis (appears when moving);
    3. tremor in hyperthyroidism (a very fine tremor that is not visible; it is easier to recognize by touch);
    4. tremor in neurotics (gross);
    5. fluttering tremor in liver failure (looks like the movement of a bird's wings);
  - convulsions (spasms): they are either tonic (twitching) or clonic (twitching)
    - found in epilepsy, eclampsia, tetanus, cerebrovascular events, encephalitis, brain swelling, hypokalemia, hyperkalemia, febrile convulsions in children, or hysteria;
  - athetoid movements: slow, twisting movements that mainly affect the face, limbs, neck and trunk;
  - choreatic movements: involuntary, clumsy movements that disrupt the patient's motor activity;
    - chorea occurs, for example, in rheumatic fever or degenerative Huntington's disease.

Links

Related articles

- Physical examination
- General examination of the patient
  - Examination of body constitution and nutritional status
  - Examination of hydration status
  - Examination of the skin and skin adnexa
  - Examination of the state of consciousness Meningeal symptoms

Sources

- CHROBÁK, Ladislav. *Propedeutika vnitřního lékařství.* 2. edition. Grada, 2003. ISBN 80-247-0609-1.