

**MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION Federal State Budgetary
Educational Institution of Higher Education of the Ministry of Health of the Russian
Federation**

NORTH OSSETIAN STATE MEDICAL ACADEMY

Glossary for Neurological Semiotics

**Department of Psychiatry with Neurology, Neurosurgery and
medical rehabilitation**

d.m.s. Professor I.A. Torchinov

Vladikavkaz 2023

Glossary for Neurological Semiotics approved

Glossary for Neurological Semiotics approved at the meeting of the Central Committee for Medical Education of the Federal State Budgetary Educational Institution of Higher Education of the NOSMA of the Ministry of Health of Russia

In the glossary, in alphabetical order, the clinical interpretation of the main terms, symptoms, signs and diagnostic techniques is given, which constitute the necessary minimum of knowledge for students of nervous diseases.

The glossary is intended for students of medical, pediatric, dental and preventive medicine faculties, residents, doctors.

REVIEWERS

d.m.s, prof. T. I. BUKANOVSKAYA

d.m.s, prof. Dzugaeva F.K.

1. **Ageusia** - loss of **gustatory** sensation.
2. **Agnosia** is a recognition disorder.
3. **Visual agnosia** - the patient does not recognize objects or their individual qualities while maintaining vision.
4. **Agnosia olfactory** - the patient does not recognize smells while maintaining the sense of smell.
5. **Auditory agnosia** - the patient does not recognize previously familiar sounds and noises while preserving hearing.
6. **Agnosia tactile** - impaired recognition of objects when feeling them while maintaining tactile sensitivity.
7. **Agraphy** - loss of the ability to write words while **maintaining the** intellect.
8. **Adiadochokinesis** - violation of the correct alternation of opposite movements, their excessiveness. Symptom of damage to the cerebellar system.
9. **Acalculia** - violation of the ability to perform arithmetic operations.
10. **Alexia** - the inability to read due to the lack of recognition of the letters.
11. **Alternating Avellis syndrome** - lesion of the glossopharyngeal and vagus nerves on the side of the focus, hemianesthesia and hemiplegia on the opposite side.
12. **Alternating Wallenberg-Zakharchenko syndrome** - on the side of the focus, the segmental type of trigeminal nerve lesion, vagus nerve, cerebellar disorders, Claude's, Bernard-Horner's syndrome; on the opposite side - disorders of movement and superficial types of sensitivity.
13. **Weber's alternating syndrome** - is expressed by paralysis of the oculomotor nerve on the side of the focus, and on the opposite side - hemiplegia and hemianesthesia with central paralysis of the facial and hypoglossal nerves.
14. **Jackson's alternating syndrome** - peripheral paresis of the hypoglossal nerve on the side of the focus, hemianesthesia and hemiplegia on the opposite side.
15. **Miyard-Gubler's alternating syndrome** - lesion of the facial nerve on the side of the focus, and on the opposite side - impaired sensitivity and hemiplegia.
16. **Fauville's alternating syndrome** - on the side of the focus, lesion of the abducens and facial nerves combined with gaze paralysis towards the focus, and on the opposite side - a disorder of sensitivity and hemiplegia.

17. **Amaurosis** - blindness.
18. **Amimia** - the absence or weakening of mimic movements of the muscles of the face, as a result of which it resembles a mask.
19. **Amblyopia** is a weakening of visual acuity.
20. **Anacusia** - deafness.
21. **Anesthesia** - complete loss of sensation.
22. **Anisocoria** - pupil inequality.
23. **Anisoreflexia** - uneven reflexes.
24. **Anosognosia** - lack of consciousness of one's defect.
25. **Anosmia** - lack of sense of smell.
26. **Apraxia** - violation of purposeful actions.
27. **Areflexia** - lack of reflexes.
28. **Asymmetric cervical tonic reflex** - when the head of the newborn is turned, the limbs, to which the face is turned, are extended, and the opposite ones are flexed.
29. **Asynergy** - the disappearance of friendly movements.
30. **Astereognosia** - the inability to distinguish objects by feeling.
31. **Ataxia** is a motor disorder resulting in poor coordination of movements.
32. **Dynamic ataxia** - impaired coordination of motor acts.
33. **Cerebellar ataxia** - manifested by impaired coordination of gait movements, adiadochokinesis, asynergy, intentional tremors, decreased muscle tone, chanted speech.
34. **Sensitive ataxia** - characterized by impaired gait ("stamping") and performing knee-heel and finger-nose tests with corrective vision. It occurs when there is a violation of the musculoskeletal sensitivity.
35. **Static ataxia** - imbalance when standing.
36. **Atactic gait** - the patient walks with his legs wide apart, raising them high and hitting the floor with the heel with force ("stamping").

- 37. Athetosis** - involuntary worm-like muscle contractions, mainly of the hands and feet.
- 38. Muscle atony** - a sharp weakening and lack of muscle tone, firmness, elasticity. It is observed in diseases of the peripheral motor neuron.
- 39. Muscle atrophy** is a pathological process characterized by a decrease in the volume and size of the muscles of the limbs, face and trunk. It is observed in diseases of the peripheral motor neuron.
- 40. Autopognosy** - violation of orientation in relation to one's own body.
- 41. Aphasia** is a speech disorder that occurs with lesions within the cerebral cortex.
- 42. Amnestic aphasia** - patients forget the name of objects.
- 43. Motor aphasia** - loss of the ability to speak freely.
- 44. Sensory aphasia** - loss of the ability to understand speech.
- 45. Protein-cell dissociation** - an increase in protein with a constant number of cells in the cerebrospinal fluid.
- 46. Binasal hemianopsia** - loss of the nasal (internal) halves of the visual fields.
- 47. Bitemporal hemianopsia** - loss of the temporal (external) halves of the visual fields.
- 48. Blepharospasm** is a convulsive contraction of the circular muscle of the eye.
- 49. Valle's painful points** - are detected by pressure along the sciatic nerve.
- 50. Bradykinesia** - general slowness of movements.
- 51. Bulbar syndrome** - characterized by peripheral paralysis of the IX, X, XI and XII cranial nerves, which is manifested by dysphonia, dysarthria, dysphagia.
- 52. Hallucinations** are imaginary perceptions that do not have an external object as their source.
- 53. Hemianesthesia** - loss of sensitivity on one side of the body.
- 54. Hemianopsia** - loss of half of the visual field.
- 55. Hemiparesis** - incomplete paralysis of half of the body.
- 56. Hemiplegia** - paralysis of half of the body.

- 57. Hydrocephalic syndrome** - characterized by hypertensive syndrome, an increase in the size of the head, discrepancies in the seams of the skull in children.
- 58. Hypacusia** is a decrease in hearing acuity.
- 59. Hyperacusis** - increased perception of sounds.
- 60. Hyperesthesia** - increased sensitivity.
- 61. Choreitic hyperkinesis** - involuntary contraction of the muscles of the face, trunk, limbs.
- 62. Hypermetry** is an excessive motor reaction.
- 63. Hyperosmia** - increased sense of smell.
- 64. Hyperpathy** is a qualitative perversion of sensitivity. Characterized by an increase in the threshold of perception.
- 65. Hyperreflexia** - increased reflexes.
- 66. Hypertensive syndrome** - an increase in intracranial pressure, accompanied by headaches, nausea, vomiting, mental disorders, changes in pulse and respiration, stagnant optic discs.
- 67. Muscle hypertension** - increased muscle tone.
- 68. Hypesthesia** - decreased sensitivity.
- 69. Hypogeisia** - a decrease in the sense of taste.
- 70. Hyporeflexia** - decreased reflexes.
- 71. Hyposmia** - reduced sense of smell.
- 72. Muscle hypotension** - decreased muscle tone.
- 73. Dysarthria** is a disorder of speech articulation.
- 74. Diplopia** - double vision.
- 75. Dissociation of sensory disorders** - occurs with segmental lesions of the spinal cord and is characterized by a change in superficial types of sensitivity while maintaining deep ones.
- 76. Dysphagia** is a violation of swallowing.
- 77. Dysphonia** - difficulty in phonation, change in voice.

- 78. Congestive optic nerve head** - characterized by hyperemia, non-inflammatory disc edema, blurred borders.
- 79. Intentional tremor** - manifests itself when performing precise motor acts, finger-nose or knee-heel tests, increases at the end of a purposeful movement.
- 80. Causalgia** - burning pain.
- 81. Quadrant hemianopsia** - loss of a quarter of the visual field.
- 82. Cellular-protein dissociation** - the predominance of pleocytosis over the degree of increase in protein in the cerebrospinal fluid.
- 83. Patella clonus** - when the patella is pushed in the distal direction, rhythmic up and down movements of the patella appear.
- 84. The clonus of the foot** - during dorsiflexion of the foot, it rhythmically bends and unbends.
- 85. Clawed paw** - when the ulnar nerve is damaged, the interosseous spaces **close** and the hand takes the form of a bird's paw.
- 86. Convergence** - convergence of the eyeballs to the midline.
- 87. Lagophthalmos** - hare's eye, insufficient closure of the palpebral fissure.
- 88. Literal paraphasia** is a speech disorder in which the patient skips, repeats or replaces letters, sounds in words.
- 89. Mydriasis** - pupil dilation.
- 90. Miosis** - constriction of the pupil.
- 91. Monoanesthesia** - lack of sensitivity in one limb.
- 92. Monoparesis** - incomplete paralysis in one limb.
- 93. Monoplegia** - lack of movement in one limb.
- 94. Neuralgia** - nervous pain, an attack of pain along the nerve.
- 95. Neuritis** is an inflammation of a nerve.
- 96. Nystagmus** - involuntary rhythmic twitching of the eyeballs.
- 97. Monkey paw** - when the median nerve is damaged, the palm flattens, taking the shape of a spatula.

98. Ophthalmoplegia - simultaneous paralysis of all or several oculomotor muscles.

99. Paralysis - lack of movement in the arms or legs.

100. Paraparesis - incomplete paralysis in the arms or legs.

101. Paraplegia - lack of movement in the arms or legs.

102. Paresis - incomplete paralysis.

103. Paresthesia is a spontaneous unpleasant sensation in the form of "crawling" on the skin, stiffness, etc.

104. Parkinsonian tremor is a small-sweeping tremor in the fingers of the "pill rolling" type, which occurs when the extrapyramidal system is affected.

105. Pleocytosis is an increase in the number of cells in the cerebrospinal fluid.

106. Wernicke-Mann posture - persistent changes in the posture of the limbs in hemiplegia: the shoulder is brought and rotated inward, the forearm is bent at the elbow joint, the hand and fingers are bent, the thigh and lower leg are extended.

107. Weber's test - the leg of the vibrating tuning fork is placed in the middle of the crown. In case of disturbance of the sound-conducting apparatus, the patient hears the sound more clearly with the diseased ear, and in case of violation of the sound-perceiving one, with the healthy one.

108. Kvekenstedt's test - caused by compression of the jugular veins during spinal puncture. The test is considered negative if the pressure of the cerebrospinal fluid rises at this time.

109. Knee-heel test - in the supine position, the patient puts the heel on the knee of the other leg and draws it along the ridge of the tibia from top to bottom.

110. Finger-nose test - the patient's index finger hits the tip of the nose.

111. Pussep's test - the patient's head bends to the chest during spinal puncture. The test is considered negative if the pressure of the cerebrospinal fluid rises at this time.

112. Rinne's test - a vibrating tuning fork is placed on the mastoid process, then brought to the auricle - the time of bone and air conduction is compared. Normally, bone conduction is shorter than air conduction

113. Stukey's test - abdominal veins are squeezed by hand at the level of the navel during spinal puncture. The test is considered negative if the pressure of the cerebrospinal fluid rises at this time.

114. Schwabach's test - a sounding tuning fork is installed on the mastoid processes and the time of sound conduction on the diseased and healthy sides in seconds is compared.

115. Pseudobulbar syndrome - characterized by central paralysis of the IX, X, XI and XII cranial nerves, which is manifested by dysphonia, dysarthria and dysphagia.

116. Ptosis - drooping of the eyelid.

117. Reflex Achilles - plantar flexion of the foot in response to a blow with a hammer on the Achilles tendon.

118. Babinsky's reflex - irritation of the sole causes dorsiflexion of the big toe and fan-like divergence of the rest when the pyramidal system is affected.

119. Ankylosing spondylitis reflex - a blow with a hammer on the back of the foot at the roots of the toes causes plantar flexion when the pyramidal system is affected.

120. Upper abdominal reflex - irritation of the skin of the abdomen under the costal arch causes contraction of the rectus muscle.

121. Pharyngeal reflex - irritation of the pharyngeal mucosa with a spatula causes contraction of the muscles of the pharynx and larynx.

122. Zhukovsky's reflex - a hammer blow on the sole at the root of the fingers causes plantar flexion when the pyramidal system is affected.

123. Carpal-radial reflex - flexion in the elbow joint and pronation of the forearm when struck with a hammer on the styloid process of the radius.

124. Protective reflex - in a newborn in a prone position, the head turns to the side.

125. Knee reflex - extension of the lower leg when hitting the tendon of the quadriceps femoris muscle below the patella with a hammer.

126. Conjunctival reflex - the touch of a cotton swab to the conjunctiva of the eye causes the eyelids to close.

127. Corneal reflex - touching the cornea with a cotton swab causes the eyelids to close.

128. Landau's reflex - if the child is kept face down in the air, he first raises his head, then comes the tonic extension of the back and legs. The reflex appears at the age of 4-5 months.

129. Reflex palmar-chin Marinescu-Rodovici - stroke irritation of the palm causes contraction of the chin muscle.

130. Babkin's palmar-oral reflex - pressure on the palm area causes the mouth to open and the head bend. It is observed in children under 3 months of age.

131. Moro reflex - when hitting the surface on which the child lies, at a distance of 15 cm from his head, the newborn moves his arms to the sides and opens his fists, and after a few seconds the hands return to their original position. The reflex is expressed up to 5 months.

132. Reflex of the soft palate - touching the mucous membrane of the soft palate with a spatula causes contraction of the palate muscles.

133. Superciliary reflex - closing of the eyelids when hitting the eyebrow arch with a hammer.

134. Reflex nasopalpebral - closing of the eyelids when hitting the bridge of the nose with a hammer.

135. Mandibular reflex - the slightly open mouth closes when struck with a hammer on the lower jaw.

136. Lower abdominal reflex - irritation of the abdominal skin above the groin folds causes contraction of the muscles of the abdominal wall.

137. Support reflex - a newborn placed on a support straightens the torso and stands on bent legs. The reflex is physiological up to 1.5 months.

138. Oppenheim's reflex - pressing and sliding the thumb across the tibial ridge from the knee cup downward, one gets a flexion of the big toe when the pyramidal path is affected.

139. Reflex of oral automatism - they are closed in the subcortical nuclei. These include the palmar-chin and proboscis reflexes.

140. Plantar reflex - irritation of the skin of the sole causes a single plantar flexion of all toes.

- 141. Bauer's crawling reflex** - a newborn, laid on its stomach, makes crawling movements. The reflex is physiological up to 4 months.
- 142. Rossolimo reflex** - short blows on the flesh of the terminal phalanges of the II-IV toes cause their rapid plantar flexion when the pyramidal system is affected.
- 143. Symmetrical tonic cervical reflex** - flexion of the head causes an increase in flexor tone in the arms and extensor tone in the legs. The reflex lasts up to 4 months.
- 144. Sucking reflex** - occurs in a newborn in response to oral irritation.
- 145. Medium abdominal reflex** - irritation of the abdominal skin at the level of the navel causes contraction of the oblique abdominal muscle.
- 146. Reflex of the biceps tendon of the shoulder (biceps - reflex)** - is caused by a hammer blow on the tendon of the muscle above the elbow joint. The patient's arm is slightly bent.
- 147. Reflex of the tendon of the triceps muscle of the shoulder (triceps - reflex)** - is caused by a hammer blow on the tendon 1-1.5 cm above the posterior process of the left bone. The patient's forearm is unbent.
- 148. Grasping reflex** - when pressing on the palm, the newborn firmly grasps the fingers. The reflex is physiological up to 4 months.
- 149. Proboscis reflex** - a blow with a hammer on the upper lip causes the lips to be pulled out in the form of a proboscis.
- 150. Stiffness of the occipital muscles** - reflex tension of the posterior cervical muscles during irritation of the meninges.
- 151. Muscle stiffness** - stiffness, occurs when the extrapyramidal system is affected.
- 152. Hanging hand** - occurs when the radial nerve is damaged.
- 153. Bell's symptom** - when trying to close the eyelids on the side of the peripheral paresis of the facial nerve, the eyeball moves up and out, the palpebral fissure does not close completely.
- 154. Wasserman's symptom** - a straightened leg is raised to a patient lying on his stomach. In this case, pain appears along the femoral nerve and in the groin. The symptom is a sign of a lesion of the femoral nerve.

155. Symptom of the upper Brudzinsky - bending the head anteriorly causes slight flexion of both legs in the hip and knee joints when the meninges are irritated.

156. Dejerine's symptom - when sneezing and coughing, the affected roots are irritated and pain in the lumbar spine occurs.

157. Kernig's symptom - in a patient lying on his back, the leg is bent at the knee and hip joints at right angles. When trying to straighten the leg, resistance is noted. The symptom is pathognomonic for meningitis.

158. Symptom Lyasega - a patient lying on his back is raised a straightened leg, at this time there is pain in the lower back and along the sciatic nerve. When bending the knee joint, the pain goes away. Symptom is a sign of sciatic nerve damage.

159. Neri's symptom - a patient lying on his back is bent his head to his chest. In this case, the affected roots are irritated and pain in the lower back occurs.

160. Symptom lower Brudzinsky - when lifting a straightened leg, the contralateral bends at the knee and hip joints. The symptom indicates irritation of the meninges.

161. Romberg's symptom - in a standing position with shifted feet and lowered hands, the patient develops swaying, which is a sign of a violation of the static coordination of the body.

162. Symptom average Brudzinsky - pressure on the pubic articulation causes slight flexion of both legs in the hip and knee joints when the meninges are irritated.

163. Syndrome Ardzhil - Robertson - characterized by the absence of a direct and friendly reaction of the pupils to light while maintaining convergence and accommodation. The syndrome is pathognomonic for neuroleues.

164. Brown-Séquard syndrome - a syndrome of lesions of half the diameter of the spinal cord is characterized by central paralysis and conduction anesthesia of deep sensitivity on the side of the focus, anesthesia of deep sensitivity on the side of the focus, anesthesia of superficial sensitivity on the opposite side.

165. Claude Bernard-Horner's syndrome - manifested by miosis, ptosis, and anophthalmos (retraction of the eyeball). The syndrome indicates a violation of the sympathetic innervation of the eye.

166. Meningeal syndrome - consists of cerebral symptoms, symptoms of irritation of the meninges, changes in the cranial nerves, spinal roots, inhibition of reflexes and changes in cerebrospinal fluid.

167. Synkinesia is a friendly movement.

168. Chanted speech - slowed down, not smooth, at the same time explosive, occurs when the cerebellar system is damaged.

169. Scotoma is a limited visual defect.

170. Strabismus - squint.

171. Tetraparesis - incomplete paralysis in all limbs.

172. Tetraplegia - lack of movement in all limbs.

173. Torsion spasm - hyperkinesia of the trunk and limbs.

174. The phenomenon of a cogwheel - discontinuity, as it were, a stepped resistance of muscles to passive movements, arising from extrapyramidal rigidity.

175. Fibrillar muscle twitching is a rapid rhythmic twitching of muscle fibers that occurs when a peripheral motor neuron is damaged.

176. Epileptic seizures are characterized by episodic disturbances of consciousness, clonic and tonic seizures, as well as autonomic lesions.

Literature

1. H.G. Hodos. Nervous diseases. A guide for doctors. Moscow, "Medicine", 1965.
2. G.I. Lip. Handbook of Neurological Semiology. Kiev, "Vishcha School", 1997.
3. L.O. Babalyan. Pediatric neurology. Moscow, "Medicine", 1984.
4. E.I. Gusev, V.E. Grechko, G.S. Burd. Nervous diseases. Moscow, "Medicine", 1988.
5. A.A. Skoromets. Topical diagnosis of diseases of the nervous system. A guide for doctors. Leningrad, "Medicine", 1989.