МЫШЦЫ ГЛАЗНОГО ЯБЛОКА. ОФТАЛЬМОПЛЕГИЯ

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MUSCLES OF THE EYEBALL. OPHTHALMOPLEGIA

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Visual sensory system allows a person to take up to 90 % of the information about the environment, so the study of its anatomical and physiological characteristics has a great importance for the development of medicine and solves a variety of ophthalmic problems. According to the World Health Organization about 285 million people over the world are suffering from visual impairment, of which 45 million people are affected by blindness and 246 million have lowered vision. One of the most common pathologies is ophthalmoplegia (total or partial), which is a violation of visual process and is connected with non-perception of the light.

Objective. Explore the mechanisms of visual act and participation of the eye muscles in it. Conduct an analysis of literature data on the anatomy and identify the most common causes of ophthalmoplegia.

Materials and Methods. Cadaveric material. Scientific papers on disturbances of muscles of the eyeball.

Results. Ophthalmoplegia – disease, the severity of which can vary significantly - from partial (paralysis of the external or internal muscles of the eyeball) to total at which deterioration of all muscles of the visual analyzer is observed. Complete lack of eye-muscle activity leads to inability to detect light due to eye light-detection system malfunction. The pupils were dilated and unresponsive to light and convergence. Causes of ophthalmoplegia may be the primary muscle damage (myopathy) and pathology of the eye socket, impaired neuromuscular transmission (myasthenia gravis), the damage of oculomotor nerves or their nuclei (nuclear ophthalmoplegia), connections between the nuclei of the nerves in the trunk (internuclear ophthalmoplegia), centers of sight in the trunk and the cerebral cortex (supranuclear ophthalmoplegia). Ophthalmoplegia is seen in as many as 20 percent of children with the Guillain-Barre syndrome, 1 percent of whom will present with the Miller Fisher syndrome.

Conclusion. Ophthalmoplegia - not only a serious violation of the light-detection, but also can be an important differential diagnostic sign of other pathologies.