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SPASTIC TETROPARESIS IS PRESENT IN CHILDREN WHO ARE IN FIRST AND SECOND CHILDHOOD STATISTICAL VERIFICATION METHODS

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ABSTRAKT

This article provides information on the material and methods of studying anthropometric indicators, examination methods and treatment methods in children of the first and second childhood suffering from spastic tetroparesis.

Key words

spastic tetraparesis, dentistry, anthropometry, ischemia, intervertebral space.

Tetraparesis is manifested by a decrease in muscle strength or a lack of movement simultaneously in the arms and legs. It is combined with disorders of pelvic functions, impaired sensitivity in the trunk and extremities, possible weakness of the respiratory muscles. It can be sluggish (peripheral), spastic (central) or mixed. For sluggish tetraparesis, a decrease in reflexes and muscle tone, and muscle atrophy are typical.

The cause of tetraparesis in spinal cord injury is compression or destruction of nervous tissue, ischemia, hemorrhages. The condition is detected in fractures, dislocations, fractures, and open wounds. At first, the phenomena of sluggish paresis are detected, followed by spastic paresis. Pathology can be observed with injuries such as:

Spinal cord concussion. The decrease in muscle strength is slight or moderate, and is transient in nature.

Spinal cord injury. A combination of functional and organic disorders is typical, and residual phenomena of varying severity are likely in the long term.

Compression myelopathy. It occurs as a result of edema, compression by a hematoma or solid structures. It can be acute, early, late.

Anatomical break. Crushing or rupture of the spinal cord is observed in case of gunshot fractures, injury by bone fragments. Circulatory disorders. They develop against the background of hemorrhages in the spinal cord and intervertebral space, damage to the main vessels.

In the acute period, the real severity of the disorders is often difficult to assess due to spinal shock, in which movements, sensitivity and reflexes below the injury site are completely lost due to excessive inhibition. The shock resembles a picture of

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a total rupture of the spinal cord, but subsequently the movements are gradually restored, a residual neurological deficit is formed due to areas of uncompensated tissue destruction.

The symptoms of spastic tetraparesis manifest themselves in the first months of a child's life. Children with this pathology do not develop the skills to hold their heads, sit, roll over, walk. Spastic tetraparesis in children is accompanied by a delay in mental and intellectual development.

Cerebral palsy of spastic tetraparesis is characterized by:

increased muscle tone;

reduced ability to move;

pronounced painful sensations;

changing the shape of the limbs (sagging);

respiratory disorders;

hiccups and shortness of breath due to irritation of the diaphragmatic spinal center;

hearing and visual impairment (strabismus);

intellectual disabilities of varying degrees.

Spasticity leads to pathological changes in the joints, deformities of the limbs and even the entire trunk.

Disorders of cerebrospinal circulation with the development of tetraparesis arose as a result of congenital (hypoplasia) and acquired (embolism, thrombosis, atherosclerosis) vascular diseases involved in the blood supply to the spinal cord. In some patients, they are caused by compression of tumors, inflammatory infiltration and enlarged lymph nodes. Sometimes they are formed as a result of iatrogenic injuries, against the background of hemorrhagic diathesis or infectious vasculitis.

In spinal stroke, tetraparesis occurs acutely within a few minutes or hours. Foci of ischemia and hemorrhages at the C1-C4 level are especially dangerous, often accompanied by respiratory disorders. When the underlying segments are affected, tetraparesis or tetraplegia is noted with a decrease in tone in the muscles of the arms and an increase in the muscles of the legs, independent breathing is preserved.

Transient disorders of the cerebrospinal circulation reveal myelogenous intermittent lameness, sudden weakness in the extremities with or without loss of consciousness when throwing back the head. Against the background of transient disorders, persistent progressive tetraparesis is gradually formed.

Circulatory disorders in arteriovenous malformations of the spinal cord can also be acute (apoplexy) or gradually developing (paralytic form). The clinical picture in the first case corresponds to a hemorrhagic stroke. The second category

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of patients has a progressive or intermittent course. The appearance of symptoms of tetraparesis may be preceded by radicular syndrome.

Half of the cases of cervical myelitis are due to infectious damage to the spinal cord by mycoplasmas, herpes simplex virus, cytomegalovirus, pale spirochete, borrelia, meningococcus. Sometimes osteomyelitis of the spine is complicated by myelitis. The remaining cases of the disease are associated with damage to the nervous tissue by neurotropic poisons, the development of inflammation against the background of injuries. Along with the phenomena of tetraparesis, intoxication syndrome and general hyperthermia are observed.

Polio is caused by enteroviruses. Tetraparesis is less common than paraparesis, and is found in the spinal variant of the disease. Muscle weakness occurs a few days after the appearance of general infectious symptoms. Along with the muscles of the extremities, the diaphragm, the muscles of the face and trunk can be involved in the process. It is possible to damage the centers of regulation of vital functions in the medulla oblongata. The recovery period lasts about a year, and contractures, deformities, and persistent flaccid paralysis are observed in the outcome.

Acute radiculoneuropathy with NEUROSPID is manifested by sluggish tetraparesis, bulbar disorders, paresis of the facial nerve. Symptoms increase over several days or weeks, then stabilize and decrease after another 2-4 weeks. Limb functions are fully restored in 70% of patients. In 15% of cases, pronounced residual neurological disorders are detected.

Progressive rubella panencephalitis develops as a result of intrauterine infection or persistence of the virus in the body after rubella. It is characterized by a chronic course with a gradual increase in manifestations: cognitive impairment, cerebellar ataxia, pyramidal symptoms. Spastic tetraparesis forms at the 2nd stage of the disease, subsequently worsens, bedridden patients.

The causes of spastic tetraparesis can be both systemic diseases of the body and spinal cord injuries. During injuries, compression and destruction of nervous tissue occurs, muscle strength decreases, and blood circulation is disrupted. This condition occurs with fractures, dislocations, and open wounds.

Tetraparesis of the spastic form can also be a consequence of the following diseases:

- congenital and acquired vascular diseases involved in the blood supply to the spinal cord;
- inflammatory pathologies caused by an infectious lesion of the spinal cord;
- cerebral palsy - tetraparesis manifests various forms of cerebral palsy, including spastic diplegia;
- autoimmune diseases;

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• hereditary pathologies - leukodystrophy, sphingomyelinosis, phenylketonuria;

• benign and malignant tumors - spinal cord tumors;

• some other pathologies, such as multiple sclerosis.

With spastic tetraparesis, as one of the manifestations of cerebral palsy, hypertension is observed, mainly in the lower extremities. The legs assume a typical abnormal position: the hips turned inward and the knees pressed against each other.

According to the severity of symptoms, three degrees of severity can be distinguished - mild, moderate and severe. With a mild degree, the patient can move independently and have self-service skills. Moderate severity - the child needs partial assistance during movement and self-care.

With severe symptoms, the patient is completely dependent on the people around him.

With a mild form, the child walks without help and restrictions, with an average form of severity, he moves with the help of crutches or sticks, with a severe form of the disease, the patient's movement is possible only with the help of a wheelchair, independent movement is severely limited or completely impossible.

The diagnosis of spastic tetraparesis is made by a neurologist. At the same time, the following diagnostic methods are used:

• radiography of the spine and skull;

• CT and MRI scans are prescribed to clarify the data obtained during radiography;

• myelography - X-ray examination of the spinal cord space;

• lumbar puncture - examination of cerebrospinal fluid;

• electroneuromyography - the study of the neuromuscular apparatus;

• laboratory tests are prescribed in cases where the pathology is caused by inflammatory or autoimmune diseases.

The treatment of the disease consists in an integrated approach that aims to maximize or restore the child's motor abilities. Neuroprotectors, immunosuppressants, antimicrobials (in case of inflammatory nature of the disease), vascular, detoxification drugs are indicated from drug therapy. According to indications, anti-inflammatory drugs and B vitamins are prescribed.

At the rehabilitation stage, the main methods of restoring motor activity will be massages, performing therapeutic exercises, and physiotherapy procedures. Orthopedic therapy is prescribed if necessary.

Microcurrent reflexotherapy is recommended for children with perinatal damage to the central nervous system, spastic tetraparesis. The procedure activates the motor areas of the cerebral cortex, relaxes the upper and lower extremities,

stimulates the speech areas of the cerebral cortex, which is important for speech development.

In children with spastic tetroparesis in the first and second period of childhood, it is necessary to study the morphometric parameters of the body, chest, upper and lower mucosa, head and face and compare them with a conditionally certain contingent, that is, anthropometric parameters of children in a healthy lifestyle. This chapter presents materials about the number of Examiners and research methods in this selected age group, taking into account the importance of randomized studies and the representativeness of selected age groups.

In the performance of this dissertation there is spastic tetroparesis 60 spastic tetroparesis majud patient children aged 5 to 12 years living in the Bukhara region of the Republic of Uzbekistan were taken to study and assess the morphometric parameters of the body, chest, upper and lower mucosa, head and face of children of the first and second periods of childhood (Group I). For comparison of the obtained morphometric data, 60 practical healthy children (Group II) aged 5 to 12 years living in the Bukhara region of the Republic of Uzbekistan were taken. A total of 120 children were examined.

Physical development anthropometric data of patients with spastic tetroparesis were carried out in the medical centers of these institutions, and morphometric data of kindergartens and students of secondary schools were carried out in the medical centers of the institutions in which they were studying. The age periodicity of the examined patient children was carried out by years, with the participation of a doctor and nurse of this institution. Prior to conducting the study, consent was obtained from the parents of the children involved in the study.

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