

TREATMENT OF TIC HYPERKINESIS IN CHILDREN

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Annotation. Tics in children are sudden repetitive movements resulting from involuntary contractions of various muscle groups. They are manifested by compulsive mimic, motor and vocal actions: blinking, squinting, twitching of the nose, mouth, shoulders, fingers, hands, turning the head, squatting, jumping up, shaking, coughing, noisy breathing, pronunciation of sounds, words. Comprehensive diagnosis includes examination of a neurologist, consultation with a psychiatrist, psychodiagnostic examination. Treatment is based on observance of a daily regimen, psychotherapy, psychocorrection, and medication.

Key words: infantile cerebral palsy, speech disorders, hyperkineses.

Introduction. Synonymous names of tics are tic hyperkineses, nervous tics. The prevalence is 13% in boys and 11% in girls. Tics in children occur between 2 and 18 years of age. Peak periods are 3 years and 7-10 years, with an epidemiologic prevalence of 20%. The least likely to debut after 15 years of age, the highest risk of development is noted in first graders - the crisis of seven years and the beginning of schooling become provoking factors of "tics of the first September". In boys, the disease is more severe and less amenable to therapy. A significant proportion of patients have seasonal and diurnal exacerbations of symptoms, hyperkineses increases in the evening, fall and winter.

Causes of tics in children

Hyperkinesias develop as a result of a complex influence of biological and external factors. From birth, the child has a certain predisposition (biological basis) to this pathology, which is realized under the influence of diseases, stress and other negative influences. The causes of hyperkineses in children can be divided into the following groups:

- Violations of intrauterine development. The result of hypoxia, infection, birth trauma is an imbalance of cortical-subcortical connections. When exposed to unfavorable factors, it manifests itself in tics.

- Aggravated heredity. The disease is transmitted by autosomal dominant type. Since boys are sick more often, it is assumed that there is a dependence on the sex of patients.
- Stressful situations. A provoking factor can be school maladaptation, increased learning load, fascination with computer games, family conflicts, divorce of parents, hospitalization. The incidence increases during age crises.
- Craniocerebral injuries. Tics can be a distant consequence of traumatic damage to the CNS. Hyperkineses of the motor type is most characteristic.
- Certain diseases. Often prolonged illnesses with symptoms that include a motor component, lead to the formation of tics. For example, after respiratory infections, coughing, nose sniffing, throat sounds are observed.
- Psychoneurological pathologies. Tics develop in children with attention deficit hyperactivity disorder, cerebrastrhenic syndrome, anxiety disorders. Hyperkineses debut against the background of exacerbations of the underlying disease.

Pathogenesis

The pathogenetic basis of tics continues to be investigated. A central place is given to the functions of the basal ganglia. The main ones are the caudate nucleus, the pale globus, the subthalamic nucleus, and the substantia nigra. In norm they are in close interaction with the frontal lobes of the cerebral cortex, limbic structures, optic tubercles and reticular formation. The connection between subcortical nuclei and frontal departments responsible for controlling actions is provided by the dopaminergic system. Decreased dopamine levels and impaired neuronal transmission in the subcortical nuclei are manifested by a deficit of active attention, insufficient self-regulation of motor acts, and a disorder of motor arbitrariness. Functioning of the dopaminergic system is disturbed as a result of intrauterine damage to the CNS, inherited changes in dopamine metabolism, stress, traumatic brain injury.

Classification

Tics in children are classified taking into account several factors. By etiology, hyperkineses is divided into primary (hereditary), secondary (organic) and cryptogenic (occurring in healthy children). By symptomatology - on local, widespread, vocal, generalized. Depending on the severity of the disease distinguish single and serial tics, ticosis status. In accordance with the International Classifier of Diseases by the nature of the course are distinguished:

- Transient tics. Have the character of local and widespread hyperkineses. Manifested as winking, facial twitches. Completely pass within a year.
- Chronic tics. Represented by motor hyperkinesias. They are divided into three subtypes: remitting - exacerbations are replaced by complete regression or localized isolated tics under load; stationary - persistent hyperkinesias for 2-4 years; progredient - no remission, the formation of ticosis statuses.
- Tourette's syndrome. Another name - combined vocal and multiple motor tics. The disease begins in childhood, the severity of symptoms decreases by the end of adolescence. In a mild form, tics continue in adults.

Symptoms of tics in children

Local (facial) tics - hyperkinesias, capturing one group of muscles. Among the manifestations in 69% of cases, rapid blinking is observed. Less frequent blinking, twitching of the shoulder, wings of the nose, corners of the mouth, head tilts. Blinks are persistent, periodically combined with other facial tics. The clamping movements are dominated by a dystonic component (tonus). A distinctive feature of facial tics - they are practically not noticed

by children, do not interfere with their daily activities. According to the severity of the clinical picture, local tics are more often single.

In widespread hyperkinesia pathological movement is covered by several groups of muscles: facial, head and neck muscles, shoulder girdle, upper extremities, abdomen, back. Usually tics debut by blinking, later joined by the introduction of gaze, twitching of the mouth, clamping, tilting and turning of the head, lifting the shoulders. The course and severity of symptoms vary from single transient to chronic with the development of tics in exacerbation. Children have difficulty performing tasks that require increased concentration, causing emotional stress (anxiety, fear). There are problems in writing, collecting small parts of the constructor, prolonged reading.

Simple vocal tics often represent coughing, nose sniffing, noisy inhalations and exhalations. Less frequently observed squeals, whistling, whistling, pronunciation of simple high sounds - "a", "u", "ay". During periods of exacerbation of nervous tics, vocal symptoms may change, which is mistakenly regarded as a new debut. Example: the child coughed, in remission there were no vocal symptoms, later there was noisy breathing. Complex vocalizations occur in 6% of patients with Tourette's disease. They represent involuntary pronunciation of individual words.

The voicing of swear words is called coprolalia. Continuous repetition of whole words and fragments - echolalia. Vocalizations are manifested by single, serial and status tics. They intensify with fatigue, after emotional and mental stress, negatively affect the social adaptation of the child - the pronunciation of words that do not correspond to the situation, swear words limits activity in communication, prevents the establishment of new contacts. In severe cases, the patient is unable to attend school, public places.

In Tourette's disease, the clinical picture is determined by the age of the child. The disease debuts at the age of 3 to 7 years. Initially there are facial tics, twitching of the shoulders. Hyperkinesia spread to the upper and lower extremities, there are turns and tilting of the head, extension / flexion of the hands, fingers, tonic contractions of the muscles of the back, abdomen, squatting, jumping. After 1-2 years, vocalizations join. Rarely vocal tics precede motor tics. The peak of symptomatology is observed from 8 to 11 years of age. Serial, status hyperkineses develop. With exacerbations, children can not go to school, need help, domestic service. By 12-15 years of age, the disease passes into a residual stage with localized and widespread tics.

Conclusions: Thus, severe forms of hyperkinesia - serial tics, tics statuses, chronic progressive course - lead to complications. Children develop perceptual disorders, decreased functions of voluntary attention, difficulties in coordination of movements, motor skills development. School failure develops - patients have difficulty mastering writing, poorly perceive new material, have problems with memorization. Lagging behind in studies is complemented by social maladaptation - muscle twitches, involuntary movements, vocalizations become the cause of ridicule, aloofness of peers.

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