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COGNITIVE IMPAIRMENT IN CHILDREN AFTER BRAIN INJURY

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Abstract. Craniocerebral trauma in children appears to many parents as a head wound after a very severe accident or accident. In reality, however, it even includes a concussion or mild brain contusion, as well as pediatric shaken baby syndrome. A child can be injured on a walk, while playing or exploring the world around them, or through the fault of adults in abusive or simply unreasonable treatment. Head injuries require increased attention because of the frequent development of delayed cognitive impairment, which is accompanied by neurological symptoms. Children may face difficulties after suffering a disorder
Key words: craniocerebral trauma, children, central nervous system, adolescents

Introduction. Recently, due to the availability of medical care, improvement of diagnostic technologies and intensive care, there has been an increase in the number of craniocerebral injuries (CCI) with a favorable outcome. The period of hospitalization in the acute period has decreased, as well as the duration of the rehabilitation period. All this contributes to the early return of children to workloads and active learning. However, this seemingly positive moment has led to an increase in negative consequences in the future - the injury manifests itself years later. In more than 60% of children who have suffered a traumatic brain injury, in the distant period there are various neuropsychiatric disorders. Their severity is determined not only by the initial degree of severity of the injury and its localization, but also by the age of the child who has received a traumatic injury and the period of time that has passed since the injury.

It has been established that, since children's brains are plastic, favorable outcomes after severe traumatic brain injury in children and adolescents are significantly greater than in adults. However, they are more likely to have cognitive, neurological, behavioral, emotional, and social-psychological problems in the long term.

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The distant consequences of traumatic brain injury are insidious in that parents and the child may already forget about the head injury when it suddenly recalls itself in the not too distant future. Often parents attribute the deterioration of educational results to laziness, disorganization, bad temper, adolescence, and in fact it manifests itself delayed post-traumatic disorders in various brain regions. Even a mild form of concussion, can lead to impaired memory and attention, loss of the ability to quickly switch from subject to subject.

After a moderate to severe traumatic brain injury, sleep, coordination, motor skills, speech, and dizziness may additionally develop. With such symptoms, it is difficult to talk about successful learning, because there is a decrease in the speed of processing information, lost or not formed the skill of planning, there are difficulties in decision-making. The child tires quickly, does not cope with emotions, feels awkward in a group of peers. Activities that used to be easy, now require increased attention and extra effort, as a consequence, the child does not keep up with the learning process.

At lessons such a child is not organized, it is difficult to be included in the learning process, it is difficult to remember the material, loses the ability to ask for help to perform tasks, can not formulate conclusions and summarize data, his knowledge is heterogeneous and fragmentary.

In addition to cognitive, there are delayed emotional and behavioral disorders, and they are closely interrelated.

Traumatic cerebrasthenia leads to pronounced fatigue and irritability. Against its background, it is not uncommon to develop hysterical and neurasthenic symptoms. And if you add the problems of school performance or other difficult life situations in which a child or adolescent is often caught, it is possible to occur psychogenic or neurotic disorders. Then social adaptation suffers significantly.

There are three periods of the course of traumatic injury: acute, intermediate and remote. The acute period lasts:

- with a mild degree of severity - up to 10 days;
- with medium - 15-20 days;
- in severe - 21-28 days.

In children, the acute period is shorter than in adults, but the intermediate, on the contrary, takes longer: up to six months for concussion and up to 2 years for severe form of traumatic brain injury. Trauma can manifest itself in the remote period within 4 years, depending on the initial severity.

Because of this delayed effect, treatment and rehabilitation should be given maximum attention, and therefore comprehensive therapeutic interventions should be intensively pursued not only in the first months after the trauma, but also much later, given that the brain and central nervous system are still developing. Interventions include not only medication support (nootropic drugs, anticonvulsants, vascular agents, antidepressants, neuroleptics), but also methods of psychotherapy, LFK.

Adults in most cases do not perceive concussion of the brain (CGM) as a brain injury. They think of a traumatic brain injury as something more serious. However, because a concussion is nothing more than a mild form of traumatic brain injury, it should be treated accordingly.

Conclusions: According to medical statistics, SGM occupies 80% of all craniocerebral injuries received by children. And in half of cases, various complications develop in the distant period.

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Most victims in the acute period of SGM experience headache, weakness, tinnitus, nausea, dizziness, sleep disturbance. The first minutes after injury may be accompanied by a brief loss of consciousness and amnesia.

Studies show that 2 years after the injury, 2/3 of children, regardless of age, complained of sleep disturbance (difficulty falling asleep, frequent awakening, dissatisfaction with the quality of sleep, daytime sleepiness), increased fatigue, irritability, resentfulness, and decreased academic performance. Their neurological status was complicated by diffuse muscular hypotonia, tremor of eyelids and hands. And before SGM children did not present such complaints.

Also, the tests allowed to determine the deterioration of cognitive functions in the remote period, which manifested itself in the increase in the time of task performance.

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