

## CONSEQUENCES OF SEVERE NEUROTRAUMA OF CHILDREN: THE SPECIFICITY OF RESTORING MENTAL ACTIVITY TO MINIMAL CONSCIOUSNESS (INTERDISCIPLINARY CONTEXT)

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**Background:** Severe neurotrauma in childhood is a serious cause of neurological, motor and mental consequences. In the acute period of craniocerebral injury different variants of disturbances of consciousness and mental activity in accordance with various age groups of children may manifest, which requires special conditions of psychiatric care and timely psychological and educational correction to restore the psychophysical potential of the child.

The effectiveness of the rehabilitation of children with acute severe brain damage depends on the comprehensive efforts of both specialists and parents (adults close to the child), whose efforts are aimed at preventing the limitations of life, social alienation and improving the child's quality of life.

An integrated approach, which includes differential diagnostics and qualified specialist assistance is meant to improve the effectiveness of rehabilitation programs and help the child to adapt to the regular life routine.

**Aims:** to identify the specificity of mental activity in the recovery of children in minimal consciousness after acute severe neurotrauma.

**Subjects and methods:** 104 children under 18 years of age with severe neurotrauma (brain injury, hypoxia, hydrocephaly) admitted for treatment and rehabilitation. Methods: clinical, psychopathological, psychological and educational; in addition - diagnostic scales, questionnaires.

**Results:** Two main groups of patients are identified according to the level of consciousness: the 1st group - 37 children (35.5%), the minimum consciousness "+"; Group 2 - 67 children (64.5%), the minimum consciousness "-". In each of these groups, specific manifestations of mental activity were identified taking into account differentiating features: rate of recovery, the severity of emotional, motor and cognitive processes; spontaneous/involuntary reactions (execution of instructions); productive responses to stimulation.

In the first group of patients (35.5%) - the consciousness is minimal "+". A smaller part of children (28%) was characterized by an average rate of recovery, inertness of emotional and cognitive processes in addition to asponaneous behavior and the motor activity, with voluntary reactions and productive responses to sensory and tactile stimulation. Most of the children from this group (72%) had a reduced recovery rate on the background of emotional and motor functions irritability, difficulties in cognitive processes with unproductive voluntary actions and responses to stimulation.

In the second group of patients (64.5%) - the consciousness is minimal "-". A smaller part of children (24%) was characterized by a reduced rate of recovery, hyperactivity and excitability of emotional manifestations, inhibition of cognitive processes with unproductive stereotypical actions and responses to stimulation. The majority of children from this group (76%) demonstrate low recovery rates, persistent inertness of emotional and cognitive processes, asponaneous behavior with a weak expression of responses to stimulation.

**Conclusion:** It is identified the specificity of psychic activity during recovery in children with acute severe neurotrauma in the minimum consciousness in accordance with the differentiating features: by recovery rate; by variuos degrees of emotional, motor and cognitive processes; by the advantage of voluntary or involuntary reactions to the instructions; by opportunities for productive responses to stimulation. Analysis of the specificity of mental activity supports a differentiated approach to the interdisciplinary tasks of children rehabilitation.

**Keywords:** neurotrauma - mental disorders - children's rehabilitation - recovery of consciousness - interdisciplinary approach - minimal consciousness - traumatic brain injury