IMPROVING TREATMENT METHODS FOR HYPOXIC-ISCHEMIC ENCEPHALOPATHY IN NEWBORNS

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Introduction. The continuing relevance of hypoxic-ischemic brain injury is due to its leading role in neonatal mortality and early childhood disability, particularly among full-term and near-term infants. The high incidence of subsequent neurological complications, including psychomotor delay, seizures, cerebral palsy, and cognitive impairment, highlights the need to develop and implement effective therapeutic approaches.

The aim of this study is to improve treatment strategies for newborns with hypoxic-ischemic encephalopathy.

Study Materials and Methods. This study involved 40 infants undergoing treatment in neonatal pathology and intensive care units. Participants were divided into two groups. The study group included 20 infants who received comprehensive therapy, including standard intensive care, as well as antioxidant and neurometabolic support. The control group, consisting of 20 infants, received only standard background therapy.

The results showed that a significant proportion of infants receiving the improved therapy showed significant improvement as early as 3-5 days of treatment. A reduction in symptoms of central nervous system depression was observed in 74-87% of newborns. A reduction in the number of seizures was observed in 63-69% of patients after initiation of anticonvulsant therapy. By 10-14 days of life, 56-65% of infants demonstrate partial or complete stabilization of muscle tone. 68% of newborns show a decrease in cerebral edema by 7-10 days. 61% of infants show improvement in periventricular echogenicity and restoration of clear brain structure.

Conclusion: Conclusion: The use of an integrated approach in the treatment of newborns with hypoxic-ischemic encephalopathy leads to a significant reduction in clinical and neurological symptoms, including suppression of central nervous system functions, muscle dystonia and seizures. In the long term, complex therapy helps to reduce the incidence of adverse neurological outcomes and improve the psychomotor development of children compared to standard treatment regimens.