AMERICAN ACADEMIC PUBLISHER

INTERNATIONAL JOURNAL OF MEDICAL SCIENCES

ISSN NUMBER: 2692 - 5206 Volume 6. No 01. January ,2026

ASSESSMENT OF INDICATORS OF PSYCHO-SPEECH AND MOTOR DEVELOPMENT IN CHILDREN WITH PERINATAL BRAIN DAMAGE

L. U.Ziyakhodzhayeva
Tashkent State Medical University
Department of Neurology, Pediatric Neurology and
Medical Genetics Tashkent city Uzbekistan

The urgency of the problem is determined by its high prevalence. Untimely diagnosis in the early stages of the disease leads to a late start of rehabilitation measures and often to severe disability. Among the many factors associated with the health of the child, one of the leading places belongs to the peculiarities of the intrauterine period of ontogenesis.

Key words: factors, psycho-speech, perinatal, children, pathology, motor disorders, development.

Relevance. Currently, significant progress has been made in the early diagnosis of brain diseases in children starting from the period of early infancy. Perinatal damage to the nervous system (PDNS) — damage to the nervous system associated with hemodynamic, liquor-dynamic and metabolic disorders, due to the impact of harmful factors in the antenatal period, during childbirth and in the first days after birth. The difficulty of topical diagnosis is explained by the anatomical and functional immaturity of the central nervous system, as well as the nonspecific polymorphic response of the brain in response to various intracranial pathological processes. One of the urgent problems of neurology is its high prevalence and early diagnosis of various forms of brain damage in young children. Untimely diagnosis in the early stages of the disease leads to a late start of rehabilitation measures and often to severe disability. Modern diagnostic methods (neuro sonography, computed tomography, magnetic resonance imaging, Doppler vasography and electroencephalography) allow us to diagnose structural damage and functional disorders of the nervous system and start timely treatment.

Deviations in the development of psychomotor functions in young children attract increasing attention of researchers and practitioners. This is explained by the opportunity to study the origins of many diseases and pathological conditions, as well as to prevent the development of irreversible consequences that create difficulties in the medical and social adaptation of patients. In order to objectify the parameters of the formation of motor, speech and mental functions of a child, it seems promising to use the method of their quantitative assessment, which makes it possible to distinguish extreme variants of the norm from the risk group and the group with pathological deviations in development. To identify the degree of development of a child, it is necessary to examine four main areas: high motor skills, small hand movements, contact with the environment (analyzer functions), pre-speech and speech development. Along with a qualitative assessment of development, a quantitative one is used with the calculation of the development coefficient, which normally amounts to 85-120 units. When static-motor functions are impaired, the child begins to hold his head, turn, sit, stand, and walk later than normal. In cases of mental retardation, the child later fixes his eyes, follows the toy, picks it up and plays, later recognizes the mother and orients himself in the environment. When pre-speech and speech development is disturbed, there is a weak cry or its absence, a violation of the stages and rates of speech development (delayed articulation formation, detection of alalia, dysarthria, etc.). It should be noted that in this syndrome there might be a combined delay in the rate of

AMERICAN ACADEMIC PUBLISHER
INTERNATIONAL JOURNAL OF MEDICAL SCIENCES
ISSN NUMBER: 2692 - 5206 Volume 6. No 01. January ,2026

development of these areas with a predominance of a violation of any function. Prognostic factors are most unfavorable for a long delay in mental development. The listed syndromes of the recovery period are of different severity and duration, which depends on the degree of damage to the central nervous system and the timeliness of treatment measures. With early complex treatment, taking into account the huge compensatory capabilities of the brain of newborns, there is a significant recovery of impaired functions, and sometimes a complete recovery by the 1-2 year of the child's life. In some cases, encephalopathies and other organic forms of CNS damage develop.

Objective: to study the psycho-speech and motor development of children with perinatal brain damage.

Material and methods: The clinical examination included a thorough collection of anamnesis to identify risk factors for the development of PPNS and indirect manifestations of this condition in children. For a more detailed assessment of children's neuropsychiatric development, the Griffiths scale was used. The Griffiths score included a detailed examination of 5 areas: motor skills, social adaptation, hearing and speech, eyes and hands, and ability to play.

Results and discussion.

A thorough assessment of the psychomotor development of children with PE revealed the following indicators: psychomotor development corresponding to normal indicators in 1 (3.3%) child, severe delay in 11 (36.67%) children, the risk group for delayed psychomotor development was 18 (60%) children.

On average, the score of psychomotor development of children in the main group was 22.26±0.5 points, while in the control group these indicators were 28.95±0.19 points, which is significantly higher than in the main group.

In general, the severity of the formed deviations in mental and motor development corresponded to a comprehensive clinical and instrumental assessment of the severity of PE.

Among children who suffered more mild CNS damage, a larger number (83%) represented a risk group for delayed psychomotor development, while gaining from 23 to 26 points. In this case, the children's psychomotor development lagged behind their peers by 1 epicurean age. The remaining 27% of children with a marked delay in psychomotor development had a lag of 2-3 epicurous years. The delay was mostly due to movement disorders. At the same time, it was possible to observe changes in visual, auditory, and orientation responses, as well as a low emotional profile.

The rate of development of psychomotor functions directly depended on the degree of hypoxia suffered during childbirth, and the syndrome prevailing in the clinic.

Thus, in children with vegeto-visceral syndrome, the score of psychomotor development was slightly higher (26.3±1.9) than in those with epileptic syndrome (22.9±1.1) and motor disorders syndrome (23.9±1.3).

The syndrome of delayed psychomotor development begins to manifest itself at 1-2 months of the child's life, which is consistent with the literature data. In the structure of this syndrome, special attention is paid to the rate of reduction and formation of innate unconditional reflexes. Symmetrical cervical-tonic, asymmetric cervical-tonic reflexes, and the development of straightening labyrinth chain tonic reflexes are of great diagnostic value. With this syndrome, by 2-3 months of life, there is insufficient animation during communication, the cry is not expressive, there is no walking, children look for the source of sound with their eyes without turning their heads, and a rare, difficult-to-evoke smile appears. By 6 months of age, children are not sufficiently interested in toys and surrounding objects, do not respond enough to the presence

AMERICAN ACADEMIC PUBLISHER
INTERNATIONAL JOURNAL OF MEDICAL SCIENCES
ISSN NUMBER: 2692 - 5206 Volume 6. No 01. January ,2026

of the mother, walking is inactive and short-lived, manipulations with objects are delayed, there is no active attention.

Conclusions.

The degree of delayed psychomotor development in children with PE depends on the pre- and perinatal, postnatal period of the lesion, as well as on etiological factors, pathomorphological changes, the duration of chronic and acute fetal hypoxia, background maternal diseases, the severity of prevailing neurological syndromes, and a deeper delay in psychomotor development is determined in epileptic syndrome and movement disorders syndrome. When analyzing the data obtained, it is necessary to take into account that the results of examination of newborns and infants depend not only on the true level of psychomotor development, but also on a number of other factors, such as the degree of biological comfort, daily biorhythm, parenting conditions, the child's mood, the environment in which the examination is performed, etc. To make sure that the function is missing, reduced, or defective, you must repeat attempts to detect it both during a single inspection and during repeated inspections with short intervals.

Literature.

1. Barashnev Yu. I. Perinatal neurology, Moscow: Triada-X, 2001, 640 p.
2. Barashnev Yu. I. Hypoxic encephalopathy: hypotheses of the pathogenesis of drug disorders and the search for methods of drug therapy. // Growing up. Bulletin of Perinatology and Pediatrics, 2002, 47 no. 1, pp. 6-13
3. Bombardirova E. P., ЯцыкYatsyk G. V., Stepanov A. A. Treatment and rehabilitation of perinatal lesions of the nervous system in children of the first months of life.
4. Volodin N. N., Kornyushin M. A., Medvedev M. I., Gorbunov A.V. Application of neuroimaging methods for stage diagnostics of embryophetal and perinatal brain lesions.// Russian Bulletin of Perinatology and Pediatrics . -2000. No. 4. - C13-16.
5. Volodin N. N., Rogatkin S. O. Modern approaches to complex therapy of perinatal CNS lesions in newborns.// Farmateka.-2004.- № 1 (80). -p. 72-82.
6. Evtushenko S. K., Shestova E. P., Evtushenko O. S. Early clinical diagnostics of motor, mental and speech delays in children under 1 year of age. -ДDonetsk, 1995, 47 p. (in Russian)
7. Zubareva E. A., Dvoryakovsky I. V. et al. Dopplerography of perinatal brain lesions, Moscow: Vidar-1999, 96 p.
8. Maslova O. I. Tactics of rehabilitation of children with neuropsychiatric developmental delays.// Russian Medical Journal.- 2000. - vol. 8. - No. 18. - pp. 746-748.
9. Palchik A. B., Shabalov N. P. Hypoxic-ischemic encephalopathy of newborns. - St. Petersburg: Piter, 2000. - 224s
10. Panova L. D., Kausarov R. D., Galimov F. B. et al. Principles of treatment of hypoxic-ischemic CNS lesions in preterm infants depending on the neurosonographic and clinical picture.// withtatiana from the collection-Ufa 1998-pp. 171-173
11. Pisarevsky M. V., Posikera I. N., Stroganova T. A. Features of psychomotor development in healthy premature infants. Kharkiv, 2003.
12. Skvortsov I. A. Development of the nervous system in children (neuro-ontogenesis and its disorders). - M., 2000. - 200 p.
13. Skoromets A. A., Skoromets T. A. Investigation of the nervous system of newborns and young children. //Topical diagnostics of diseases of the nervous system, St. Petersburg, 2000, pp. 180-228.

AMERICAN ACADEMIC PUBLISHER

INTERNATIONAL JOURNAL OF MEDICAL SCIENCES

ISSN NUMBER: 2692 - 5206 Volume 6. No 01. January ,2026

14. SkorometsA. P., Palchik A. B., Shabalov N. P. Modern concepts of perinatal encephalopathy. //Russian Pediatric Journal.-2001. - No. 1. - pp. 31-34.
15. Ulezko E. A., Nikitina L. P., Selkhov Yu. I. Possibilities of diagnostics of ischemic brain changes in newborns. // Materials of the scientific and practical conference. Minsk, 1999, pp. 91-92
16. Aicardi J. Diseases of the Nervous System in Childhood. Cambridge University Press, 1998; 1100
17. Albers G. at al. Safety, tolerability and pharmacokinetics of the NMDA antagonist dextrofan in patients with acute stroke. Dextrophan study group.// Stroke. 1995. - 26:254-8
18. Allen MC. Neurodevelopmental outcomes of preterm infants. //Curr Opin Neurol. 2008. 21(2):123-128.
19. Alvares XA, Lombardi VR, Fernandez-Novoa L, Garsia M. et al. Cerebrolysin reduces microglial activation in vivo and vitro: a potential mechanism of neuroprotection. //J.Neural Transm Suppl. -2000;59:281-292
20. Back S.A., Riddle A., McClure M.M., Maturation-Dependent Vulnerability of Perinatal White Matter in Premature Birth.// Stroke.- 2007;38:724-730.
21. Back SA. Perinatal white matter injury: the changing spectrum of pathology and emerging insights into pathogenetic mechanisms. //Ment Retard Dev Disabil Res Rev.- 2006.- 12(2):129-140.
22. Barkovich A. J., Hajnal B.L., Vigneron D. et al. Prediction of neuromotor outcome in perinatal asphyxia evaluation of MR scoring systems. // Am. J. Neuroradiol. - 1998. - v. 19. - p. 143-149.

Contact email address	dr.latofat@mail.ru