



Journal Website:  
<https://theusajournals.com/index.php/ijmscr>

Copyright: Original  
content from this work  
may be used under the  
terms of the creative  
commons attributes  
4.0 licence.

## FEATURES OF NEUROLOGICAL AND PSYCHO-SPEECH DISORDERS IN CHILDREN WITH CEREBRAL PALSY

Submission Date: February 10, 2023, Accepted Date: February 15, 2023,

Published Date: February 20, 2023

Crossref doi: <https://doi.org/10.37547/ijmscr/Volume03Issue02-04>

Y.D. Ganikhujaeva

Master'S Degree Student Of Children Neurology Tashkent Pediatric Medical Institute, Uzbekistan

### ABSTRACT

The article examines various forms, clinical and neurological characteristics, as well as psycho-speech disorders linked to motor disorders in preschool children in order to evaluate the risk factors of the development of cerebral palsy.

### KEYWORDS

Cerebral palsy, preschool children, psycho-speech development.

### INTRODUCTION

infantile cerebral palsy (cerebral palsy) refers to multifactorial diseases, the causes of development of which are divided into 3 groups, depending on the period of development: perinatal, intranatal, and postnatal, and also has an effect of a burdened obstetric and gynecological history [3]. Among obstetric and gynecological risks, the presence of a history of miscarriages, stillbirths, undeveloped pregnancy in mothers, and the birth of premature or underweight children is of great importance. The great

importance and role in the development of cerebral palsy are assigned to the premorbid background and the presence of neurological, endocrinological, cardiovascular, and autoimmune diseases in mothers at the stage of decompensation during pregnancy [2]. Restless pregnancy with intrauterine development delay, early and late gestosis, proteinuria, hypesthesia, threats of miscarriage, multiple pregnancies, various intrauterine infections (ToRCH), and frequent incidence of acute respiratory viral infections, is also a

factor that increases the likelihood of developing cerebral palsy [4,5].

A lot of research has been devoted to the study of cognitive functions in cerebral palsy, while cognitive impairment is observed in 80-95% of children with cerebral palsy. The degree of cognitive impairment is directly dependent on motor disorders. It should be noted that motor disorders are accompanied not only by cognitive deficits but also by neuropsychiatric disorders, which complicates the treatment and rehabilitation of these children [1]. One of the reasons for the development of cognitive deficits is the dysfunction of the interaction of neurons in the cerebral cortex, which is noted in hypoxia [1,2].

**The aim of the study** was to study clinical, neurological, and psycho-speech features in children with cerebral palsy.

**Materials and methods of research:** 52 children with various forms of cerebral palsy, preschool age were examined. The study group of patients was divided by gender. The analysis by gender showed that out of 52 patients, the number of boys was 30 (58%), and girls – 22 (42%).

**The results of the study:** various pathological factors adversely affecting the fetal development of the fetus affected the outcomes of pregnancy. In the study of risk factors, premature birth contributed to the development of cerebral palsy, especially in the development of spastic diplegia (61%), it should be noted that these children were born with extremely low weight. The study of the anamnesis of children with cerebral palsy showed that the gestation period at birth ranged from 28 to 42 weeks, and 24 (40%) of the children were premature (28-37 weeks). Most newborns weighed from 2500 to 3500 grams. 6.5% of full-term children had a low weight from 1500 to 1999

gr. According to the anamnesis, these children had intrauterine developmental delays. In premature infants, this figure was 40.9%. In the case of a full-term pregnancy, signs of intrauterine infection (IUI) were noted (66.7%) - contamination of amniotic fluid (73%), frequent acute respiratory infections (85%) during pregnancy, threats of miscarriage (29%), decreased transplacental blood flow (78%). At birth, as a rule, these children had a delay in intrauterine development, a low score on the Apgar scale, and long-lasting jaundice.

It should be noted that various forms of cerebral palsy are accompanied by gross organic deficiency, which creates great difficulties in the rehabilitation of these children.

During a neurological examination, 52 children with various forms of cerebral palsy had craniocerebral disorders in the form of oculomotor disorders (15%), and convergent strabismus (13%). These children had facial nerve lesions (30%) characterized by central paresis.

Bulbar disorders were manifested by choking and swallowing disorders (15%). In the study of the motor sphere of the upper and lower extremities, there was a restriction of both passive and active movements, depending on the form of cerebral palsy.

In the study of muscle tone, 70% of children had hypertonicity to one degree or another, indicating a lesion of the pyramidal system. Hyperkinesia accounted for 18%. An increase in tendon reflexes (86%) was accompanied by hypertonicity (70%) and was characterized by an expansion of their zone and foot clonus, with the formation of contractures (20%). The lag in psychological development was noted to varying degrees in 50 children (96%), which is also explained by the severity of this pathology.

The clinical picture of patients with cerebral palsy is characterized by a combination of motor, speech, and mental disorders, which vary depending on the form of cerebral palsy. The assessment of motor disorders was assessed according to the following indicators: head retention, the ability to crawl, sit independently, stand independently, and walk independently. Since various motor disorders were identified in various forms of cerebral palsy, it was decided to consider them separately.

Speech and mental disorders in the group of children with spastic diplegia (SD) varied widely. 69.4% of patients in this group had speech disorders. In children with SD, sitting skills were absent in 8.3%, verticalization skills were absent in 33.3%, independent walking skills were absent in 44.4%, 69.4% of children had various degrees of psycho-speech development disorders, 30.6% of patients had normal speech development and minor disorders in the form of dyslalia and logoneurosis.

Neurological examination of children with pediatric hemiplegia (PH) revealed pathological installations of the limbs and trunk: shoulder reduction, flexion and pronation of the forearm, flexion and ulnar deviation of the hand, thumb reduction, spinal column scoliosis, equinovarus or valgus deformity of the foot, placing the foot on the leading edge, flexion in the knee and hip joints. All children used the affected limb to a lesser extent, and performed a minimum of movements. 8 (66%) children had difficulty moving their hands, of which 4 (33%) children had no movement possible. In 22% of children, active movements in the distal parts of the limb were impossible.

In the group with SD, children with normal speech development were significantly higher than in the previous group and amounted to 50%. Children with minor speech pathology were registered in 16.7% of

cases. There were 33.3% of patients with severe and moderate speech disorders, which corresponds to the literature data.

In children with dyskinetic forms of cerebral palsy, hyperkinesia of various types was noted: from athetoid in the hands, mimic to torsion. There was also a different degree of their severity. The muscle tone was dystonic. Voluntary motor skills in children developed with great difficulty, the balance was disturbed, and automation of motor skills was difficult. To a large extent, the observed patients had impaired fine motor skills in the hands. Speech disorders were observed in almost all patients of this group: 2 children had normal speech, while the rest had dysarthric speech. With such pronounced speech disorders, mental development was disrupted to a lesser extent. The cause of ZPR was pronounced hyperkinesia, which prevented patients from contacting others, and there was pedagogical neglect. This indicates that, despite motor and speech disorders, this form is quite favorable in terms of learning and social adaptation.

Thus, all types of cerebral palsy in preschool children are accompanied by motor and cognitive impairments, the severity of which is proportional to motor deficits.

## REFERENCES

1. Nemkova, S.A. Disorders of mental development in cerebral palsy: complex diagnosis and correction / S. A. Nemkova // Journal of Neurology and Psychiatry named after S.S. Korsakov. - 2018. - No118. - pp. 105-113..
2. Rogov, A.V. Risk factors in patients with cerebral palsy in the form of spastic diplegia / A.V. Rogov // Universum: Medicine and pharmacology: electronic scientific journal. - 2013. - No1. – Access modes: <http://7universum.com/ru/med/archive/item/332> ., Alekseeva, G.Yu. Assessment of risk factors

involved in the development of cerebral palsy in disabled children / G. Yu. Alekseeva, I.I. Sholomov // Saratov Scientific Medical Journal. - 2011. - No7. - pp. 446-450

3. Federal clinical guidelines for helping children with cerebral palsy [Electronic resource] // Union of Pediatricians of Russia. – 2018. – Access mode: [http://www.pediatr-russia.ru/sites/default/files/\\_kr\\_dcp.pdf](http://www.pediatr-russia.ru/sites/default/files/_kr_dcp.pdf)
4. Cordeiro, C.N. Infections and Brain Development / C.N. Cordeiro, M. Tsimis, I. Burd // Obstet. Gynecol. Surv. – 2015. – V.70(10). – P.644 – 55
5. Shepherd, E. Antenatal and intrapartum interventions for preventing cerebral palsy: an overview of Cochrane systematic reviews [electronic resource] / E. Shepherd, R.A. Salam, P. Middleton [et al] // Cochrane Database Syst. Rev. – 2017. – V.8: CD012077. – Access mode: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD012077.pub2/full>

**OSCAR**  
PUBLISHING SERVICES