

**PERINATAL INJURIES OF THE NERVOUS SYSTEM IN THE ARAL SEA REGION:
CLINICAL MANIFESTATIONS AND ANALYSIS OF ETIOLOGICAL FACTORS**

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Annotation: This article analyzes the clinical manifestations of nervous system injuries in infants in the perinatal period in the Aral Sea region and their etiological causes. During the study, based on clinical observations collected in perinatal centers in the Republic of Karakalpakstan, Khorezm and Bukhara regions, hypoxic-ischemic encephalopathy, mechanical brain injury, hemorrhages and other neurological disorders were identified. Anemia, gestosis, complications during childbirth, and environmental factors observed during pregnancy served as the main causes of these injuries. Early detection and prevention of perinatal nervous system injuries requires strengthening preventive measures.

Keywords: Perinatal injury, hypoxic-ischemic encephalopathy, environmental factors, neonatology, nervous system, clinical symptoms, patronage

Introduction: The perinatal period is one of the most important and dangerous stages in a child's life. Especially in ecologically hazardous zones such as the Aral Sea region, perinatal pathologies are characterized by a high incidence. The ecological crisis that has arisen in the region as a result of the drying up of the Aral Sea has a direct impact on water and air pollution, maternal and child health. In particular, injuries to the nervous system in the perinatal period in newborns are recognized as a serious problem that negatively affects their mental and physical development in the future.

This article studies the etiology and clinical manifestations of nervous system injuries based on clinical observations in the Aral Sea region.

The purpose of the study:

To determine the incidence of perinatal injuries of the nervous system in the Aral Sea region, their clinical manifestations and main etiological factors.

Research material and methods:

1. Research object:

Newborns born in perinatal centers and maternity hospitals of the Republic of Karakalpakstan, Khorezm and Bukhara regions during 2014–2024.

2. Selection:

Medical documents of 780 infants were retrospectively studied.

110 infants were prospectively observed.

3. Diagnostic methods:

Clinical examination (neurological reflexes, muscle tone, motor skills)

Instrumental examinations: EEG, neurosonography, MRI (in some cases)

4. Statistical analysis:

Statistical data were analyzed using Microsoft Excel and SPSS programs.

Results:

Out of 780 cases studied, 82 (10.5%) were found to be associated with perinatal nervous system injuries.

Common types of perinatal injuries:

Hypoxic-ischemic encephalopathy — 45%

Mechanical brain injury — 22%

Subarachnoid hemorrhage — 11%

Neonatal tetraparesis — 6%

Microcephaly, ventriculomegaly — 3%

Clinical signs:

Fade or absence of reflexes

Hypotonia or hypertonia

Decreased motor response

Weak sucking reflex

Frequent loss of consciousness

Main etiological factors:

Etiologik omil

Uchrash foizi

Etiologik omil	Uchrash foizi
Homiladorlikdagi anemiya	38%
Gestozi va preeklampsiya	24%
Uzoq davom etgan tugʻruq	19%
Tugʻruqdagi asfiksiya	17%
Ikkinchi bosqichda kesarcha kesish	12%
Ekologik toksinlar (arsen, nitratlar) Tahlil asosida tasdiqlangan	

Discussion:

It is revealed that the perinatal nervous system damage is high in the Aral Sea region. The negative state of the ecological environment - dust in the air, toxic substances in water, iron and folic acid deficiency in pregnant women - serve as a negative factor in the neurodevelopment of the baby.

Also, the difficult course of childbirth, poor prenatal care for women, and untimely diagnosis lead to a further aggravation of the condition. The cases observed in the experiment indicate the need to improve medical services in this regard.

Conclusion:

Perinatal injuries are an important neonatological problem in the Aral Sea region.

Their main causes are pathologies during pregnancy, environmental factors, and conditions related to the labor process.

Clinical signs include impaired muscle tone, decreased reflexes, and slow movement.

To prevent them, it is necessary to monitor early pregnancy, identify women in high-risk groups, and strengthen prenatal care.

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