New Day in Medicine
Новый День в Медицине
NDM

TIBBIYOTDA YANGI KUN

Ilmiy referativ, marifiy-ma'naviy jurnal

AVICENNA-MED.UZ

ISSN 2181-712X.
EiSSN 2181-2187

4 (66) 2024

ТИББИЁТДА ЯНГИ КУН
НОВЫЙ ДЕНЬ В МЕДИЦИНЕ
NEW DAY IN MEDICINE

Илмий-рефератив, маънавий-маърифий журнал
Научно-реферативный,
духовно-просветительский журнал

УЧРЕДИТЕЛИ:

БУХАРСКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ ИНСТИТУТ
ООО «ТИББИЁТДА ЯНГИ КУН»

Национальный медицинский исследовательский центр хирургии имени А.В. Вишневского является генеральным научно-практическим консультантом редакции

Журнал был включен в список журнальных изданий, рецензируемых Высшей Аттестационной Комиссией Республики Узбекистан (Протокол № 201/03 от 30.12.2013 г.)

4 (66)

2024

апрель

www.bsmi.uz
https://newdaymedicine.com E:
ndmuz@mail.ru
Тел: +99890 8061882

Received: 20.03.2024, Accepted: 10.04.2024, Published: 15.04.2024

УДК 616.831-005-009.11-053.2-079.4

DIFFERENTIATED APPROACH TO PAEDIATRIC MOVEMENT DISORDERS WITH CIRCULATORY IMPAIRMENTS

Karimova N.A., https://orcid.org/0009-0006-2757-150X
Gulyamova M.K., https://orcid.org/ 0009-0007-0165-9463
Saidazizova Sh.H , https://orcid.org/0000-0001-6522-9592
Kuvondikova D.U. Email: KuvondikovaD@mail.ru

Center for the Development of Professional Qualifications of Medical Workers under the Ministry of Health of the Republic of Uzbekistan, Tashkent city, Mirzo Ulugbek district, Parkentskaya street, 51
Phone: +998 (71) 268-17-44 E-mail: info@tipme.ru

✓ ***Resume***

We conducted a research analyzing a group of 12 children between the ages of 7 to 10 years who have excelled in their academic pursuits at secondary school. The intelligence quotient (IQ) ranged from 0.9 to 1.1, indicating that all participants were within the normal range for cognitive functioning. Comprehensive researches including anamnestic, clinical neurological, electromyographic (EMG), electroencephalographic (EEG), Doppler and MRI studies were performed in all children.

Key words: motor disorders, circulatory disorders in children.

ДИФФЕРЕНЦИРОВАННЫЕ ПОДХОДЫ К ДВИГАТЕЛЬНЫМ НАРУШЕНИЯМ У ДЕТЕЙ С ПОСЛЕДСТВИЯМИ НАРУШЕНИЙ КРОВООБРАЩЕНИЯ

Каримова Н.А. https://orcid.org/0009-0006-2757-150X
Гулямова М.К., https://orcid.org/ 0009-0007-0165-9463
Саидазизова Ш.Х , https://orcid.org/0000-0001-6522-9592
Кувондикова Д.Ю. Email: KuvondikovaD@mail.ru

Центр повышения профессиональной квалификации медицинских работников при Министерстве здравоохранения Республики Узбекистан, город Ташкент, Мирзо Улугбекский район, улица Паркентская, 51 Телефон: +998 (71) 268-17-44 E-mail: info@tipme.ru

✓ ***Резюме***

Мы провели исследование, проанализировав группу из 12 детей в возрасте от 7 до 10 лет, которые преуспели в учебе в средней школе. Коэффициент интеллекта (IQ) варьировался от 0,9 до 1,1, что указывает на то, что когнитивные функции всех участников находились в пределах нормы. Всем детям проведены комплексные исследования, включающие анамнестические, клинико-неврологические, электромиографические (ЭМГ), электроэнцефалографические (ЭЭГ), допплерографические и МРТ исследования.

Ключевые слова: двигательные нарушения, нарушения кровообращения у детей.

БОЛАЛАРДА МИЯ ҚОН АЙЛАНИШИ БУЗИЛИШЛАРИДА КУЗАТИЛУВЧИ ҲАРАКАТ ЎЗГАРИШЛАРИГА ҚИЁСИЙ ЁНДОШУВЛАР

Каримова Н.А., https://orcid.org/0009-0006-2757-150X
Гулямова М.К., https://orcid.org/ 0009-0007-0165-9463
Саидазизова Ш.Х , https://orcid.org/0000-0001-6522-9592
Кувондикова Д.Ю. Email: KuvondikovaD@mail.ru

Ўзбекистон Республикаси Соғлиқни сақлаш вазирлиги ҳузуридаги Тиббиёт ходимларининг касбий малакасини ошириш маркази Ўзбекистон Тошкент ш., Мирзо Улғбек тумани, Паркентская кўчаси 51-уй Тел: +998 (71) 268-17-44 E-mail: info@tipme.uz

✓ ***Резюме***

Биз ўрта мактабда академик муваффақиятга эришган 7 ёшдан 10 ёшгача бўлган 12 нафар болалар гуруҳини таҳлил қилиб, тадқиқот ўтказдик. Интеллектуал коэффициент (ИҚ) 0,9 дан 1,1 гача бўлган, бу барча иштирокчиларнинг когнитив функцияси нормал чегараларда эканлигини кўрсатади. Барча болалар анамнестик, клиник неврологик, электромиёграфик (ЕМГ), электроансефалографик (ЕЕГ), Допплер ва МРИ тадқиқотларини ўз ичига олган кенг қамровли тадқиқотлардан ўтказилди.

Калит сўзлар: ҳаракат бузилишлари, болаларда қон айланишининг бузилиши.

Relevance

Recently, there has been an increase in the number of children with persistent movement disorders, which are regarded as cerebral palsy, or as a consequence of cerebral/spinal circulation disorders. It is well known that circulatory disorders, both cerebral and spinal, lead to social maladaptation. It worsens the child's life quality and cause disability, and sometimes death of the child.

The clinical manifestations in patients with cerebrovascular impairments encompass a range of movement disorders that result from damage to the extrapyramidal, pyramidal, cerebellar, brain stem and spinal systems. Additionally, convulsions and varying degrees of mental insufficiency are commonly observed. However, there are often cases when, in the clinical picture of the disease, a clearly marked motor deficiency in the limbs is not accompanied by severe mental impairment, and leveled out relatively quickly.This phenomenon is frequently observed in cases involving ischemic brain damage. It should be noted that children who attend comprehensive schools are often misdiagnosed with cerebral palsy.

Purpose. To conduct a comprehensive clinical and paraclinical examination of children exhibiting movement disorders, whose disease manifestations differ from the established criteria for cerebral palsy with regards to cognitive aspects.

Patients and methods

We conducted a research analyzing a group of 12 children between the ages of 7 to 10 years who have excelled in their academic pursuits at secondary school. The intelligence quotient (IQ) ranged from 0.9 to 1.1, indicating that all participants were within the normal range for cognitive functioning. comprehensive researches including anamnestic, clinical neurological, electromyographic (EMG), electroencephalographic (EEG), Doppler and MRI studies were performed in all children.

Results. The following aggravating circumstances were in the medical history of our patients. During pregnancy, anemia cases, blood pressure fluctuation , nephropathy in mothers, threat of miscarriage, intrauterine infections and other risk factors along with their combinations were observed. During delivery, stimulation techniques and obstetric assistance were employed due to the challenging period of birth involving the baby's head and shoulders. The early postnatal stage was marked by heightened excitability, anxiety as well as sleep disturbances. Additionally, during examination three children complained of headaches while 4 of them had myopia or strabismus. Gait disturbances, weakness in the limbs were presented in eight children

The neurological symptoms of three patients are consistent with the diagnosis of spastic diplegia (Liddle' syndrome). There was increased muscle tone, contractures are present in the hip, knee, and ankle joints. Additionally, there is an increase in tendon reflexes leading to pathological foot reflexes such as Babinsky reflex, Rossolimo's sign, finger flexor reflex and foot clonus. The patients' gait was spastic-atactic, walking under visual control. Attention was paid to severe vegetative-trophic disorders in the form of dryness, hyper-depigmentation of the skin, muscle wasting on both the lower and upper extremities. The following symptoms were characteristic of our patients: in 7 children, flaccid paraparesis of the arms with clear hypotonia, hyporeflexia, and decreased muscle strength was detected. In 8 children, signs of peripheral cervical insufficiency were found with symptoms of asymmetry of the shoulder girdle, "winged scapula", poor posture, Langbein's symptoms, "subclavian fossa", protective tension of the neck muscles, wasting of the muscles of the shoulder girdle, shoulder, etc.These patients exhibit a gait that is spastic-ataxic and requires visual control. Furthermore, they display marked vegetative-trophic disorders including dryness, hyper-depigmentation of skin and muscle wasting on both lower and upper extremities. Seven children show flaccid paraparesis of the arms with clear hypotonia, hyporeflexia and decreased muscle strength while eight others have signs of peripheral

cervical insufficiency characterized by asymmetry of the shoulder girdle or ‘pterygoid’ shoulder blades along with poor posture. Langbein’s symptoms like subclavian fossa protective tension of neck muscles or wasting muscles were also observed around these areas. Six cases showed deformation of chest accompanied by paresis abdominal muscles alongside angular kyphosis at thoracic spine region resulting in segmental sensitivity disorders. Interference EMG data shows that seven cases had a "picket fence" rhythm recorded from all involved regions indicating spinal level lesion while five other cases had mixed type EMG featuring type I activity along with IIa,b,and III types according to Yusevich’s classification which indicates characteristics typical for spinal as well as supraspinal muscular pathology. EEG revealed cortical lesions foci in four children whereas midline brain structures dysfunction was found only among two individuals; rest having normal indicators. Dopplerography study conducted on nine examined patients showed blood flow deficiency present within vertebral vessels. In ten cases MRI scans performed revealed mild atrophy located near frontotemporal parasagittal parts showing ischemic changes whereas two incidences showed mild ventricular enlargement without any severe intellectual impairments detected during examination process for this group under observation.

Results and discussion

In the patients we examined, clinical and neurological phenomena were found that indicated the presence of a lesion in the spinal structures at the level of the cervical spine, cervical thickening and thoracic area. These changes can be attributed to spinal circulatory disorders resulting in a mixed type of motor disorders characterized by spasticity, flaccid paresis, segmental, conduction, vegetative-trophic and pelvic disorders. The EMG data confirms that the lesion is located in the spinal region while EEG and MRI indicators correlate with Doppler data on chronic vertebrobasilar insufficiency. The clinical information obtained suggests a complex symptomatology involving both spinal-cerebral manifestations which have been developed due to intrapartum vertebrobasilar insufficiency complicated by ischemia of brain and spinal cord. Therefore, it is incorrect to diagnose cerebral palsy in this case.

Conclusions

1. Movement disorders in childhood require clear differentiation in terms of the lesion.
2. Natal injuries in children can result in vertebro-basilar insufficiency, which may manifest as spinal circulatory disturbances.
3. 3.Prompt detection and comprehensive diagnosis of these ailments, coupled with an integrated approach to treatment, will enhance rehabilitation outcomes for this category of children, elevate their long-term prognosis and augment social adaptation prospects.

LIST OF REFERENCES:

1. Dudnikova E.V. Orlova E.V. Etiopathogenetic basis of the formation of cerebral palsy (literature review) Text of a scientific article in the specialty “Clinical Medicine” Bulletin of KazNMI No. 1 2019
1. Zhakupova M.N., Isaeva R.B., Ospanova D.A., Nurbakyt A.N. The main causes of the development of cerebral palsy Vestnik KazNMI No. 1 2019 .pp176-179.
2. Pizova N.V. Pain after stroke and rehabilitation (clinical observation) Russian Medical Journal): 2023
3. https://www.rmj.ru/articles/nevrologiya/Boly_posle_insulyta_i_reabilitaciyaklinicheskoe_nablyudenie/#ixzz8KC21KpZ5
4. Bykova O.V., Platonova A.N., Balkanskaya S.V., Batysheva T.T. Cerebral palsy and epilepsy - approaches to treatment and rehabilitation
5. S.S. Korsakov. Journal: Journal of Neurology and Psychiatry named after. 2012;112(72): 6470
6. Yanishevsky S.N., Khatkova S.E. A progressive view of the treatment and rehabilitation of acute ischemic stroke. // Journal of Neurology and Psychiatry. S.S. Korsakov. Special issues. 2022;122(122): 5054
7. S.A. Nemkova, N.N. Zavadenko, M.I. Medvedev. Modern principles of early diagnosis and complex treatment of perinatal lesions of the central nervous system and cerebral palsy. Methodological manual 2021.

Entered 20.03.2024