WEB OF SCIENTIST: INTERNATIONAL SCIENTIFIC RESEARCH JOURNAL
ISSN: 2776-0979, Volume 4, Issue 3, Mar., 2023

FEATURES OF CLINICAL AND NEUROLOGICAL COURSE OF BIRTH INJURIES IN CHILDREN

Utaganova Gulzhakhon Kholmuminovna
Shoira Tulkinovna Isanova
Mukhtarova Maftun Alisherovna
Bobozhonova Ziedahon
Samarkand State Medical University

Annatition

To date, birth trauma still remains the most urgent problem of the perinatal period of newborns in modern medicine. To date, no clinical diagnosis of traumatic and non-traumatic brain and spinal cord injuries has been developed. Especially for the prevention of birth trauma injuries, there are no systematic obstetric studies. Perinatal lesions of the nervous system lead to disability in 35-40% of cases due to both mechanical damage and various disorders of cerebral hemodynamics. Treatment of birth injuries of newborns is carried out differentially, taking into account the type and severity of the injury.

Keywords: newborns, nervous system, birth trauma, clinic, neurological changes, diagnostics.

BOLALARDA TUG'ILISH SHIKASTLANISHINING KLINIK VA NEVROLOGIK KURSINING XUSUSIYATLARI

Utaganova Guljaxon Xolmuminovna
Isanova Shoira Tulkinovna
Muxtorova Maftuna Alisherovna
Bobojonova Ziyodaxon
Samarqand davlat tibbiyot universiteti

Annotaciya:

Bugungi kunda tug'ilish travmasi zamonaviy tibbiyotda yangi tug'ilgan chaqaloqlarning perinatal davrining eng dolzarb muammosi bo'lib qolmoqda. Bugungi kunda miya va orqa miyaning travmatik va shikastlanmagan shikastlanishlarining klinik diagnostikasi ishlab chiqilmagan. Ayniqsa, tug'ilish shikastlanishining oldini olish bo'yicha tizimli akusherlik tadqiqotlari mavjud emas. Asab tizimining perinatal lezyonlari mexanik shikastlanish va miya gemodinamikasining turli xil kasalliklari tufayli 35-40% hollarda nogironlikka olib

keladi. Yangi tug'ilgan chaqaloqlarning tug'ilish jarohatlarini davolash shikastlanishning turi va og'irligini hisobga olgan holda differentsial ravishda amalga oshiriladi.

Kalit so'zlar: yangi tug'ilgan chaqaloqlar, asab tizimi, tug'ilish travması, klinika, nevrologik o'zgarishlar, diagnostika

ОСОБЕННОСТИ КЛИНИЧЕСКИХ И НЕВРОЛОГИЧЕСКИХ ТЕЧЕНИЯ РОДОВЫХ ТРАВМ У ДЕТЕЙ

Утаганова Гулжахон Холмуминовна
Исанова Шоира Тулкиновна
Мухтарова Мафтуна Алишеровна
Бобожонова Зиёдахон
Самаркандский государственный медицинский университет

Аннотация:
на сегоднящний день Родовая травма до сих пор остается актуальнейшей проблемой перинатального периода новорожденных в современной медицины. На сегоднящний день не разработана клиническая диагностика травматических и нетравматических повреждений головного и спинного мозга. Особенно по профилактике родовых травматических повреждений нет систематизированных акушерских исследований. Перинатальные поражения нервной системы ведут к инвалидизации в 35–40% случаев вследствие как механических повреждений, так и различных нарушений церебральной гемодинамики. Лечение родовых травм новорожденных проводится дифференцированно с учетом вида и тяжести повреждения.

Ключевые слова: новорожденные, нервная система, родовая травма, клиника, неврологические изменения, диагностика.

The relevance of the problem. issues of perinatal neurological disorders in children are increasingly being paid attention along with cerebral birth injuries, birth injuries of the spine and spinal cord.

According to various authors, generic spinal injury is found in 60-75% of premature infants and newborns at risk, 17 accounting for 10 to 20% of the total number of children born.

Spinal disorders in childbirth, especially in combination with cerebral, differ in clinical manifestations and the nature of the course of the disease, since in the first 7-10 days, symptoms of brain dysfunction prevail, "overlapping" spinal symptoms. The above leads to the fact that newborns with undiagnosed birth trauma occurring with polymorphism of clinical manifestations, for the first time get an outpatient appointment with a neurologist from neonatologists and pediatricians, as a rule, without specifying syndromes concerning spinal disorders (3, 11, 18).

Material and research methods. Screening of newborns for RTSOP was carried out among children of the “high risk for birth injury” group, taking into account a number of factors:

1. Demographic factors, low socioeconomic status, maternal age (less than 16 years old, primigravida 35 years and older, pregnant 40 years and older), maternal weight (less than 40 kg, more than 80 kg), height less than 157 cm, malnutrition, physical handicaps.

2. Obstetric history: a large number of pregnancies; bleeding during pregnancy after 12 weeks; premature rupture of amniotic fluid; previous operational childbirth; protracted childbirth; a child with a birth injury, mental retardation, cerebral palsy, other disorders of the central nervous system, malformations; reproductive disorders: infantilism, recurrent miscarriage, stillbirth or neonatal death; pathology of the placenta and uterine bleeding, incorrect position of the fetus, oligohydramnios; fetal or uterine growth failure, or both, premature and late delivery. 3. Extragenital pathology: hypertension or kidney disease in combination, diabetes, cardiovascular diseases, diseases of the respiratory system, accompanied by hypoxemia and hypercapnia, etc. points. An assessment of the severity of a patient with RTSOP and SM is necessary to determine the scope of therapy and to objectify clinical signs, as well as to dynamically monitor the course of treatment. To establish the diagnosis of "birth injury of the cervical spine" and subsequently assess the degree of its severity, all newborns (n=800) underwent a screening assessment according to the method of L.A. Plekhanov. (2003). The following indicators were analyzed and interpreted: complaints from the words of the attendant; cranial innervation; the presence or absence of vertebral syndrome; unconditioned spinal and non-spinal reflexes; pathological reflexes, including unreduced in time; tendon reflexes; active movements in the limbs and in the trunk, including those formed by age. If the changes in the neurological status are mild, then the scores of the bottom line are taken into account, if the changes are medium - the average, if severe - the top line. The sum of the collected pathological scores corresponds to the severity of RTSOP and SM.

Determination of the severity of the condition, that is, the assessment of multiple organ failure, is a priority in relation to the diagnosis of individual syndromes.To assess the level of consciousness of newborns, the Glasgow coma scale is not applicable, including the scale adapted for children under 2 years of age, since all tests can be subjectively interpreted with a scatter of intervals of 2 points; The Glasgow coma scale test "Verbal Reactions" was replaced by an assessment of emotions, which cannot be considered adequate. In these situations, the use of the Shakhnovich A.R. scale is more acceptable. , which takes into account stem reflexes and differences in the predictive value of symptoms.

In the scale we used, we studied the scoring of symptoms by assessing their presence and absence: oculocephalic reflex, opening the eyes to sound or pain, following instructions (the sign was assessed by the presence of the Moro reflex, Robinson reflex, ASTR), bilateral mydriasis, muscular atony, respiratory disorders, corneal reflex, knee reflex, pupillary reaction to light, cough reflex, Magendie's sign, spontaneous movements, reaction to pain tone, wheezing during breathing, screaming, respiratory rate) was assessed on a two-point system.

The absence of a sign (cyanosis, wheezing during breathing), as well as normal muscle tone, a sonorous motivated cry, and a respiratory rate of 1 min less than 60 were assessed as 0 points. Depending on the degree of pathological severity of the symptom, a score of 1 or 2 points was set. The total score of less than 4 points - suspicion of respiratory distress syndrome (RDS), 4 points - RDS I, 5-6 points - RDS II, more than 6 points RDS III.To detect hyperalgesia and carry out appropriate anti-shock measures, we used the newborn algometric scale, which was quite reliable in our studies. Particular attention is paid to the fact that all four assessments of the response are summed up (to a fast jet of air from a syringe at 1 minute and a minute later, then similarly to an intramuscular injection). The reaction to the air jet was rated at 3, 4 and 5 points; reaction to the injection of 1, 2 and 3 points, depending on the response received. The interpretation of the amount received was as follows: 0-3 points - pain threshold increased. 4-7 points - the pain threshold is normal, anesthesia is required for traumatic manipulations. 8-12 points - the pain threshold is lowered, sporadic pain relief and regular sedation are required. 13-18 points - the pain threshold is sharply reduced, regular anesthesia and sedation, anti-shock measures are needed. All patients underwent a general blood test with an emphasis on determining the level of hemoglobin, and the level of blood pressure was measured in dynamics. Determination of the level of arterial pressure and tissue oxygen pressure was carried out on a HEWLETTPACKAPPM30 V6A heart monitor. Normative blood

pressure levels in full-term infants were 85/60-40 mm Hg, in premature newborns - 65/35-25 mm Hg.

Determination of the severity of the condition of patients with RTSOP in critical condition, that is, the assessment of multiple organ failure, is a priority in relation to the diagnosis of individual syndromes. To assess the level of consciousness in newborns, the scale of A.R. Shakhnovich (1986) was used, taking into account stem reflexes and differences in the prognostic value of symptoms. Diagnostic value of symptoms in critically ill newborns with HTSOP Tests Main subgroup n=74 Presence Absence Oculocephalic reflex, abs % 3 45.95, 40, 54.05 Eye opening to sound or pain, bilateral mydriasis, muscular atony, respiratory failure, corneal reflex , patellar reflex, pupillary reaction to light, cough reflex, Magendie's sign, spontaneous movements, reaction to pain. In the predominant part of children with RTSOP, who are in moderate and severe conditions (n=74), there was a disturbance of consciousness in varying degrees of severity.Which manifested itself mainly in the form of the absence of an oculocephalic reflex (54.0%), the absence of eye opening to sound or pain (60.81%), respiratory failure (77.03%), knee (81.08%) and cough reflexes (83 .78%), absence of spontaneous movements (83.78%) and response to pain (59.46%). In children of the control group, in one case, the absence of an oculocephalic reflex (3.3%) was noted, in one patient - the absence of eye opening to the sound (3.3%), in two observations - the absence of knee reflexes (6.67%), in one A healthy newborn had no cough reflex (3.3%). However, these symptoms disappeared on re-examination and did not require any correction. At the same time, the total score on this scale in children of the main subgroup was 45.67±0.2 points, and in children of the control group it was 62.3±0.6 points. The highest score in healthy newborns was 65 points. The average score for all symptoms in children in the control group significantly exceeded those in children with HTSOP by 2, and in some cases by 4-5 times (Figure 4). 33 Figure 4. Distribution of points in observation groups when determining the degree of impairment of consciousness on a scale Shakhnovich A.R. Note: 1 - oculocephalic reflex, 2 - eye opening to pain or sound, 3 - bilateral mydriasis, 4 - muscle atony, 5 - respiratory disorders, 6 - corneal reflex, 7 - knee reflex, 8 - pupillary response to light, 9 - cough reflex, 10 - Magendie's symptom, 11 - spontaneous movements, 12 - reaction to pain.Of particular importance in critically ill children with RTTTOGT are detectable disorders of the respiratory system, most often manifested in the form of asphyxia. In this regard, we analyzed the Downs scale, which allows us to assess the severity of RDS. When assessing the degree of RDS, we took into account the following indicators: cyanosis, muscle tone, wheezing during breathing, crying and respiratory rate per minute. Each feature was evaluated on a two-point system.

The absence of cyanosis in the main subgroup was detected in 18 (17.47%) patients who received a score of 0 points. In children of the control group, cyanosis was detected only in 2 (6.67%) cases. 56 (54.37%) children with RTSOP of the main subgroup received a score of 1 point, their cyanosis disappeared when FiO2=0.4. Cyanosis that does not disappear at FiO2=0.4 was detected in 29 children (28.15%) of the main subgroup who received a score of 2 points. At the same time, the average score in healthy children was 0.07±0.02, and in children with a birth injury of the spine, 1.11±0.3 points. When determining muscle tone, normotonia was detected in 28 (93.33%) healthy newborns with a score of 0 points, which in the main subgroup was 19.42% (20 cases). The main symptom in children with RTSOP on the first day of life in the main control group 34 was a violation of muscle tone, most often manifested in the form of tremor or extensor hypertonicity - 63.11% (65 cases) with a score of 1 point. 18 (17.47%) newborns of the main subgroup received a score of 2 points, they had muscle hypotension, sometimes with a transition to atony, in 3 cases - convulsions. Short-term extensor hypertonicity was noted in 2 (6.67%) healthy newborns. The average score for this indicator in the main subgroup was 0.98±0.3 points.

To determine the tactics of managing patients with RTSOP, the determination of the pain threshold should have a special place. In this connection, we analyzed the results of the algometric scale for newborns, including testing for 3 main features: 1. increased heart rate (HR) by 15% or more from the original; 2. systolic blood pressure: an increase of 15% or more from baseline; 3. convulsions and apnea in children of the main subgroup and control groups were recorded at 1 minute and after a minute in response to the reaction to the injection and the reaction to the air stream (table 3.2.3). As can be seen from the table below, children with RTSOP often had a lowering of the pain threshold, which required, along with the usual methods of correction, additional analgesic measures. Thus, an increase in heart rate by 15% or more of the initial value more than a minute after the air jet was detected in 71.84% of the children of the main subgroup, who received a score of 4 points. It should be noted that in some children (8.74%) with RTSOP, an increase in the pain threshold was revealed, and the absence of a response in the form of an increase in heart rate to the air stream. Somewhat less frequently (66.02%), a decrease in the pain threshold in children with HTSOP manifested itself in the form of an increase in systolic blood pressure by 15% or more from the initial one 1 minute after exposure to an air stream. Apnea attacks in response to a stimulus (injection, air jet) regardless of time (more or less than 1 minute) have a special place in the diagnosis of RTSOP, which was detected in our study in 39.81% of children in the main subgroup. Table 5Algometric scale for the

characteristics of newborns with RTSOP (n=74) Response to air jet (minutes) Tests Response to injection (minutes) >1 1 4 points 3 points HR: increase by 15% or more from baseline 1 point 2 points 71.84% (n=74) 19.42% (n=20) 8.74% (n=9) 12.62% (n=13) 43.69% (n=45) 43.69% (n=45) 5 points 4 points * Systolic blood pressure: increase by 15%" and more from * 2 points 3 points 36 66.02% (n=68) 29.13% (n=30) 4.85% (n=5) of the initial 8.74% (n=9) 29.13% (n=30) 62.14% (n=64) Score 5 Score 5 * Seizures or Apnea** * Score 3 Score 3 39.81% (n=41) 39.81% (n=41) 60.19% (n=62) 60.19% (n=62) 39.81% (n=41) 39.81% (n=41) Note: *- no response was noted * * - most often apnea was noted, only 2 patients had convulsions. Interpretation of the results of assessing the pain threshold according to the algometric scale of newborns showed an increase in the pain threshold (total score 0-3 points) in 12 (11.65%) children of the main subgroup. In 14 patients (13.59%) with RTSOP, the pain threshold was normal (total score 4-7 points), anesthesia was required only for traumatic manipulations. However, most of the children (61.16% - 63 patients), who received a score of 8-12 points, assumed sporadic pain relief and regular sedation, their pain threshold was lowered. A sharp decrease in the pain threshold was noted in 12 (11.65%) children with RTSOP with a total score of 13-18 points. These children received regular anesthesia and sedation, and, if necessary, anti-shock measures. 2 children (2.92%) of the main subgroup, who received a total score of more than 18 points, underwent general anesthesia and anti-shock measures

Conclusion.The clinical symptoms of natally caused injuries of the cervical vertebrae can be mild and therefore often underestimated in the neonatal period. A preventive examination of all newborns is necessary, because only early and accurate diagnosis of these injuries ensures the success of rehabilitation measures.

Literature

1. Isanova Sh.T., Otaganova G.Kh., Tursunova M.T.,Mukhtorova. M.A Clinical features of neurological and vegetative changes observed in adolescents with metabolic syndrome. Problems of Biology and Medicine.ISSN 2181-5674. https //doi.org/10.38096/2181-5674.2022.4

2. Utaganova G.Kh., Isanova Sh.T., Rakhimova Z.K. Pain syndrome etiopathogenesis. “Economics and Society” No. 4 (95), 2022. www/iupr.ru

3. A.T. Jurabekova, G. Kh. Utaganova, Sh.T. Isanov, M.A. Mukhtarova. Evolutionary aspects of pain and problems of pain syndrome. Journal of Neurology and Neurosurgical Research 3 (6), 2022

4. G.K. Hakimova, A.T. Jurabelov. Botulinum therapy in the complex rehabilitation of children with cerebral palsy. Biology va tibbiyet muammolari Khalkaro ilmiy journal №2.1(107)2019 1,2019
5. Gaibiev A.A. Dzhurabekova A.T. Isanova Sh.T. Clinical and laboratory changes in diabetic neuropathy in dolescents. Web of cientist^international scientific research journal. ISSN: 2776-0979, Volume 3, Issue 4, April., 2022 . 743-749 p.
6. Nurmamatovna, A. N., Tulkinona Sh.I., Takhirovna, D. A., Alisherovna, M. M., & Salimovna, S. D.Modern Views Of Obesity –Comorbidity/ The American Journal of Medical Sciences and Pharmaceutical Research, 2(08). (2020).
7. Sh.S.Ollanova.,N.N.Abdullaeva.,Sh.T.Isanova Clinical and neurological manifestations of pain syndrome of parkinson's disease. Web of scientist^international scientific research journal. ISSN: 2776-0979, Volume 3, Issue 3, Mar., 2022.Website:https:// wos.academiascience.org
8. Isanova Sh.T., Djurabekova A. T., Abdullaeva N. N., Muxtarova M.A. Sustained attention in children with obesity. «NEVROLOGIYA»—4(84), 2020.147 стр.www.med.uz www.tipme.uz
9. Kuznetsova A.A. BOLALARDA TUNGI ENUREZ // Nefrologiya. 2012. 16-jild. 3-son (2-son), b. 16-24
10. Radjabov S., Djurabekova A.T., Isanova Sh.T. Determination of early diagnostic and neyrological signs in patients with systemic lupus erythematosus. // Galaxy international, interdisciplinary research journal. Vol.10. No.9(2022) :GIIRJ
11. StudenikinV. M. Bolalarda tungi enurez muammosi: adabiyotlarni ko'rib chiqish (2012–2013) // Tibbiy ilmiy va amaliy portal https://www.lvrach.ru/2013/05/15435705
12. Tulkinovna Sh.I., Nurmamatovna, A. N., Takhirovna, D. A., Alisherovna, M. M., & Salimovna, Sh.D. .Modern Views Of Obesity –Comorbidity. The American Journal of Medical Sciences and Pharmaceutical Research, 2(08). (2020).
13. Yusupov A.M., Djurabekova A.T., Utaganova G.X., Savronov J.S. Xavf omillari, klinik va nevrologik parametrlar va enurezli bolalarni davolashni optimallashtirish // American Journal of Medicine and Medical Sciences 2022, 12(3): p. 258-261
14. .Sh.T.Isanova Sh.S.Ollanova.,N.N.Abdullaeva. Clinical and neurological manifestations of pain syndrome of parkinson's disease2022/3/3.Web of scientist^international scientific research journal.
15. Gaybiev A.A. Isanova Sh.T.,Abdullaeva N.N. , Djurabekova A.T. Clinical - Neurological And Vegetative Dysfunctions In Adolescents With Metabolic Syndrome. 2020/7. International Journal of Pharmaceutical Research.Том 12.№3//1782 – 178

16. S Radjabov, AT Djurabekova, ST Isanova. Determination of early diagnostic and neurological signs in patients with systemic lupus erythematosus.Galaxy International Interdisciplinary Research Journal 10 (9), 1-7, 2022
17. Tulkinovna Sh.I., Nurmamatovna, A. N., Takhirovna, D. A., Alisherovna, M. M., & Salimovna, Sh.D. .Modern Views Of Obesity –Comorbidity. The American Journal of Medical Sciences and Pharmaceutical Research, 2(08). (2020).
18. Yusupov A.M., Djurabekova A.T., Utaganova G.X., Savronov J.S. Xavf omillari, klinik va nevrologik parametrlar va enurezli bolalarni davolashni optimallashtirish // American Journal of Medicine and Medical Sciences 2022, 12(3): p. 258-261
19. .Sh.T.Isanova Sh.S.Ollanova.,N.N.Abdullaeva. Clinical and neurological manifestations of pain syndrome of parkinson's disease2022/3/3.Web of scientist^international scientific research journal.
20. Gaybiev A.A. Isanova Sh.T.,Abdullaeva N.N. , Djurabekova A.T. Clinical - Neurological And Vegetative Dysfunctions In Adolescents With Metabolic Syndrome. 2020/7. International Journal of Pharmaceutical Research.Том 12.№3//1782 – 178
21. S Radjabov, AT Djurabekova, ST Isanova. Determination of early diagnostic and neurological signs in patients with systemic lupus erythematosus.Galaxy International Interdisciplinary Research Journal 10 (9), 1-7, 2022