RESEARCHING THE CAUSES OF HEMORRHAGIC DISEASES IN NEWBORNS DURING THE ANALYSIS

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Annotation: *The problem of bleeding in newborns and young children is one of the urgent problems of pediatrics and is associated with severe complications and serious disorders of the child's health.*

Case histories and results of clinical and anamnestic examinations were studied in 22 newborns with hemorrhagic disease, hospitalized in the neonatology department of the ODMPNC during the last three years. Diagnosis of the disease was carried out on the basis of a detailed study of the anamnesis and clinical, laboratory and instrumental parameters (platelet count, coagulogram, ultrasound and neurosonography).

It was revealed that vitamin K deficiency leads to the development of hemorrhagic disease of the newborn due to the influence of adverse factors from the mother (preeclampsia, medication during pregnancy, operative delivery), and the child (prematurity), which requires enhanced dispensary monitoring of a pregnant woman, early identification of risk factors to a newborn.

Key words: *newborn, hemorrhagic disease of the newborn (HRD), nurological symptoms .*

INTRODUCTION

The development of hemorrhagic syndrome in newborns is associated with severe complications, serious health problems and decreased survival rates [2]. The problem of bleeding, especially latent forms, remains a pressing issue in pediatrics,

since blood coagulation disorders in children are now quite common, which is associated with the peculiarities of the hemostatic system in children [4]. Standard values of hemostasis indicators in newborns and children in the first months of life , differ from the values in adults and are subject to significant changes immediately after birth. Almost all healthy full-term newborns in the first 5 days of life experience a decrease in the levels of procoagulants, physiological anticoagulants and plasminogen [1, 3]. In newborns and premature infants, the hypocoagulation direction of the plasma-coagulation link of hemostasis is determined against the background of increased intravascular coagulation and fibrinolysis activity [5,6]. Tis disease is characterized by prolongation of prothrombin time against the background of normal levels of platelets and fibrinogen [7].

Recently, there has been an increase in cases of hemorrhagic syndrome in children, which often occurs as hemorrhagic disease of the newborn [1] and is manifested by various clinical symptoms. In this regard, to diagnose intracranial hemorrhages in hemorrhagic disease, we studied obstetric history data, information about the course of labor, and analyzed data from neurological and special examination methods. One of the features of the examination of a newborn is the absence of such a reference point as complaints. When the mother and the newborn were together, it was possible to look at the child through the eyes of the mother and evaluate from her position the changes taking place in the condition and behavior of the newborn. The lack of information about the dynamics of the newborn's condition was compensated by a special team of nurses, who, ensuring continuity in monitoring the mother and newborn, recorded the parameters of interest to the neonatologist over time.

The goal is to analyze the causes of the development of GRBN in order to improve the prevention of the disease.

Material and research methods. We studied the medical histories and examination results of 25 newborns with hemorrhagic disease who were hospitalized in the neonatology and neonatal intensive care unit of the Children's Medical Research Center in the period from 2021 to 2023.

Diagnosis was carried out on the basis of a detailed study of the anamnesis, clinical, laboratory and instrumental indicators (platelet count, coagulogram, ultrasound, CT and neurosonography).

All cases accompanied by impaired consciousness and/or convulsions in the newborn were regarded by us as cerebrovascular accidents. We considered the level of consciousness upon admission to be the main indicator for assessing the severity

of the child's condition. To detect, localize and volume of intracranial hemorrhages, CT of the brain and neurosonography were used in all children.

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When performing a CT scan of the brain, the size and volume of the intracerebral hematoma and the transverse dislocation of the midline structures of the brain were measured. The deformation and filling with blood of the basal and surrounding cisterns, subarachnoid space, and the magnitude of the lateral displacement of the fourth ventricle were assessed. The presence of foci of increased density in the ventricles of the brain was determined to assess the degree of their filling with blood clots, the severity of internal hydrocephalus by the degree of dilation of the ventricles in comparison with normal gestational indicators.

Research results. The hemorragic disease of newborns was 2.7 times more common in girls than in boys (72.7% and 27.3%, respectively). All newborn patients were residents of the village: 40.9% of children were from the Kashkadarya region, 22.7% of newborns were from the Kushrabad district, 36.4% of patients were from other regions. There were 2.1 times more patients admitted with GRBN in the spring (68.2%) of the year (from March to May) than in the winter months (31.8%). This was presumably due to the poor diet of the mother, who limited the consumption of vegetables and fruits containing vitamins during pregnancy, which may have been the cause of the development of HF in her baby. Essential foods - bread, cereals and milk – could not compensate for the deficiency of vitamin K, but cauliflower, lettuce, spinach, zucchini, beans containing vitamin K1 (phylloquinone), as well as beef liver and kidneys, cheese, butter, eggs, corn oil, Peas and oatmeal containing vitamin K2 (menaquinone) were not always included in the diet of a pregnant woman. During pregnancy and childbirth, 18.2% of mothers received indirect anticoagulants, anticonvulsants, and antibiotics as prescribed by a gynecologist for chronic diseases. During the entire period of pregnancy, 31.8% of mothers had gestosis and 59.1% had intestinal dysbiosis. In 22.7% of cases, delivery was surgical - by Caesarean section. Prophylactic administration of vitamin K preparations in the maternity hospital after birth was not administered to 40.9% of newborns, which was the cause of the development of hemorrhagic disease. Due to the severity of the mother's condition, 68.2% of children were mixed-fed from birth, which could also provoke the development of HFNC. 36.4% of newborns were put to the mother's breast late, and 27.3% of infants did not receive enough mother's milk due to the

development of hypogalactia. 22.2% of newborns were born premature with a body weight of less than 2100 g, who received parenteral nutrition and antibiotic therapy, which contribute to the development of hypovitaminosis K. The early form of hemorragic disease of newborns was diagnosed in three children when hemorrhagic symptoms appeared on the first day after birth and was caused by the mother taking it before the birth of the child. medications that affect the production of vitamin K. The classic form of hemorragic disease of newborns was diagnosed on days 2-10 of life in every second (59.1%) hospitalized mixed-fed patient and in 27.3% of patients who received an insufficient volume of breast milk. In 27.3% of newborns, a late form of hemorragic disease of newborns was detected, associated with insufficient absorption of vitamin K in diseases of the liver and biliary tract. The late form of vitamin K-dependent bleeding was more common in boys hospitalized in the summer.

A study of case histories revealed the presence of provoking factors for the development of HF in 31.8% of children - the presence of severe asphyxia. The first symptoms of the disease in 18.2% of newborns were hematemesis, in 27.3% melena, in 22.7% of children - skin hemorrhages, in 13.6% of cases - cephalohematoma, and in 13.6% of infants internal hemorrhages were noted. Symptoms of bleeding were combined in 22.7% of newborns.The hemorragic disease of newborns was complicated by hemorrhagic shock in one patient hospitalized in the neonatal intensive care unit. In 45.5% of newborns, hemorrhagic syndrome was accompanied by stool disturbances, which is associated with an imbalance of intestinal microflora leading to insufficient production of vitamin K, while it is known that vitamin K2 is produced by intestinal microflora beginning from the 3rd–5th day of a child's life. A study of the intestinal biocenosis of patients upon admission to the hospital showed the presence of bifid flora deficiency in all children. Bifidobacteria was shown in 45.5% of newborns in the 5th dilution, in 27.3% of children - in the 4th and in the rest - in lower dilutions.

Conclusions. Thus, the impact of unfavorable factors on the part of the mother (maternal dysbiosis, gestosis, taking anticoagulants during pregnancy, surgical delivery) and the child (prematurity) contributes to the development of hemorrhagic disease in newborns and the neurological disorders caused by it (motor disorders, visual impairment, convulsions) , which requires early identification of risk factors and increased clinical monitoring of a pregnant woman.

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