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THE RELEVANCE OF THE EFFECT OF IRON DEFICIENCY ANEMIA DURING PREGNANCY ON THE HEALTH OF THE CHILD

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Abstract- The main goal of the article is to prevent neglect of the health of women and children during pregnancy. Among a number of diseases, iron deficiency anemia is very important, because it does not only affect the health of the mother, but also prevents the formation and growth of organs and systems of the fetus in the womb. The reason for choosing the following topic is that many studies on the topic of iron deficiency anemia have been published by domestic and foreign authors. That is, how much iron deficiency anemia affects the health of the expectant mother and unborn child, the relevance of this topic in the field of medicine and other fields beyond its borders. The article includes studies and scientific papers on iron deficiency anemia, as well as unique results on the topic. The study included 10 newborns born to mothers diagnosed with anemia during pregnancy. The condition of newborn was assessed as severe and moderate. Long-term respiratory diseases and changes in the nervous system were noted. Received treatment according to the protocol of diagnosis and treatment in accordance with clinical diagnoses. On the basis of the conducted research, it was concluded that it is necessary to reduce the percentage of iron deficiency anemia among pregnant women and children.

Keywords—*iron-deficiency anemia; children's health; pregnancy; central nervous system; psychomotor; severe and prolonged maternal anemia*

I. INTRODUCTION

The situation of women and children is the main indicator of the social well-being of society in the present and future. Pregnancy and the course of childbirth in most cases are determined by the birth of a healthy or sick child.

Prolonged iron deficiency, which leads to the development of a state of iron deficiency anemia, sometimes contributes to irreparable health disorders in children. Therefore, the World Health Organization (WHO) requires a

great deal of attentions to this issue and actions aimed at combating iron deficiency [1].

The high incidence of extragenital abnormalities during pregnancy has a direct connection with the state of anemia [2]. Of all the anemias, the most common type and accounting for 80 percent is iron deficiency anemia (hereinafter referred to as IDA). According to WHO, more than 500 thousand people worldwide suffer from IDA, and the incidence of IDA in pregnant women in different states was from 21% to 89% [3].

The prevalence of anemia among children is 17.5% higher, including 40-50% in early childhood. In general, the brain holds iron longer than the liver. Under the influence of this, it prevents the use of reserves. It is necessary to correct the iron deficiency at an early age, considering the development of the brain, the processes of maturation of which coincide with the perinatal period and the first year of life. Iron provides the production of biologically active substances-neurotransmitters. The neurotransmitter, in turn, is responsible for the delivery of nerve impulses between neurons. In addition, iron participates in the process of myelination of nerve fibers and contributes to the function of the hypothalamus. During IDA, motor activity decreases, psych emotional state is disturbed. Children and adolescents with IDA are associated with a risk group that leads to the development of psychiatric diseases like depressive, bipolar disorders, and autism spectrum disorders.

Newborns sometimes lose a large amount of blood during birth. A state of shock may develop. There may be signs of pallor, increased heart rate, decreased blood pressure and frequent breathing. In early childhood, weakness in the nervous system, stubbornness, frequent dizziness, noise in the ears, superficial sleepiness and fatigue are determined by this sign.

II. METHOD

The total number of babies born with iron deficiency anemia was 10, these 10 babies were in the control group. This

group is infants admitted to the departments of pathology and intensive care of newborns. Five babies of them are girls, 5 are boys. 70% of babies in the control group were born before term (37-41 weeks), and the remaining 30% were born prematurely (32 weeks). Six mothers had mild IDA, and four mothers had moderate IDA. During pregnancy, four out of ten mothers received outpatient treatment. All mothers have extragenital abnormalities. In the study of infants, they used clinical (general examination, indicators of weight and height, determination of gestational age and system examination, indicators of hemodynamics), laboratory-instrumental (general blood, urine tests, biochemical blood tests, acid-alkaline state of peripheral blood, radiography, neurosonography) and immunological, molecular biology methods.

The process of data collection and analysis was carried out using the quantitative research method. By finding patterns and average values, forecasts were made. It was discussed whether cause-and-effect relationships could be established and whether the results could be used to generalize to larger populations.

The primary health indicators for women of reproductive age and their children are highlighted in this study, which makes it significant. First and foremost, it is influenced by social living conditions. Second, it is heavily influenced by organizational and medical elements, demographic significance—more specifically, the loss of health or fertility—as well as the labor capacity, intellectual capacity, and reproductive status of born children.

The difference of this work from previous studies conducted by other researchers is that it was focused on 10 children who were examined and the results of the study were summarized. This result was used to collect the medical history of pregnant women admitted to the perinatal center.

III. RESULTS AND DISCUSSION

The condition of newborns at birth was assessed on the Apgar scale. Six (60%) are born with an average level, and four (40%) of children are born in difficult conditions. In four out of ten children, the condition at birth is satisfactory, but after one day it was transferred to another department on average with deterioration of the central nervous system and the appearance of jaundice of the skin. Of course, the condition of premature babies was very difficult. Severe asphyxia manifested itself in only one case. The average body weight of full-term infants without changes. However, two infants had 10% higher weight loss (physiological weight loss). All children of the group under general supervision had changes in the central nervous system. Weakness or decreased activity was more common. In addition, respiratory diseases were one of the main problems in infants in severe cases. As a result, neurosonography showed hypoxic damage to the central nervous system in all infants. Anemic condition, blood transfusion has not been registered.

An expectant mother should pay special attention to her health before pregnancy and be prepared for pregnancy. Systematic examination of children born to mothers with long-term anemia is necessary. It is important to timely identify IDA and carry out therapeutic measures in infancy and early age, and ensure that IDA does not interfere with the child's learning and finding his place in society. Since the antenatal iron reserves in all children aged 5-6 months are depleted, the metabolic process in infants is active. It is necessary to make a list of effective iron preparations and insist on taking them for at least three months. Fixing the features of the clinical signs of the central nervous system in children, as well as in young children diagnosed with IDA, further laboratory, and instrumental studies (ultrasound, neurosonography, electroencephalogram) should be carried out. Special attention should be paid to the implementation of therapeutic and preventive measures as a prevention of psychomotor and speech disorders that prevent the growth of a child in the surrounding society in the future of irreversible processes in the brain.

The current situation indicates the need to further strengthen measures to correct this problem. However, measures to improve healthcare will not solve this problem. The issue of maternal and child health is a complex medical and social problem at the state level and must be resolved by the entire society, as well as local administration, the media, parents, employees of children's educational institutions, sociologists, psychologists, and lawyers.

IV. CONCLUSIONS

The fetoplacental system is violated when pregnant women have IDA. The time frame for early postnatal adaptation and the time after birth are frequently impacted by violations of this system. The severity of the damage is directly correlated with the mother's persistent and severe anemia, which is the outcome of treatment [4]. The only thing keeping this matter relevant is the risk that iron deficiency anemia poses to a child's health, and every youngster who is healthy is our nation's future. The goals of this program are to lower the occurrence rate of the studied issue, lessen pregnancy and delivery complications, and enhance the wellbeing of the offspring.

The present study may be a useful reference for the researchers who would plan to make any related study precisely on iron deficiency anemia.

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