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# Iron-Deficiency Anemia in Newborn and Young Children

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**ABSTRACT**

The article presents a literature review of current trends in the prevention and diagnosis of anemia in newborns and young children. The forms of anemia are determined, the causes of development and criteria for laboratory diagnostics, a modern view for the prevention of children with anemia are given.

**Introduction.** Anemia is very common in children. It is characterized by a significant decrease in the amount of hemoglobin in the child's blood, as well as the number of red blood cells - erythrocytes. With anemia, oxygen starvation of all organs and systems of the baby occurs, this can lead to irreversible consequences in the health of the child. In this article, we will look at what anemia in children is, its causes and prevention.

Causes of anemia in children: insufficient or unbalanced nutrition, nutrition without taking into account the age characteristics of the child, the same type of nutrition, too early or too late introduction of complementary foods; often develops in premature babies born with low body weight; congenital diseases and malformations; malnutrition or illness of the mother during pregnancy, late toxicosis of pregnancy, premature birth of a child, the birth of twins, the umbilical cord is tied up until the pulsation stops; pathology of childbirth: bleeding as a result of placenta previa, damage to the placenta in cesarean section; imperfection and immaturity of the child's hematopoietic organs, which are very sensitive to external and internal pathological factors, and cannot quickly restore hemoglobin and red blood cells.

As a result of anemia, the child develops general hypoxia, including brain tissue, which can lead to serious consequences for the health of the baby. Anemia always accompanies diseases of the kidneys, liver, digestive tract, immune disorders, blood loss and surgical procedures, absorption disorders in the intestines, allergic diseases, dysbacteriosis, oncological, infectious diseases. The largest group of anemias - deficient - develops due to insufficient replenishment in the body of substances from which blood hemoglobin is formed. These anemias are more often observed in babies in the first year of life, when there are problems with feeding the child. The body suffers from insufficient intake of iron, protein, folic acid, vitamins B6, B12 with food. Often these anemias occur in children with diseases of the gastrointestinal tract, as a result of impaired absorption in the intestine.

Symptoms. Pale skin, pale mucous membranes of the oral cavity and tongue, shortness of breath,

tachycardia, thready pulse, weakness and drowsiness, pallor and bluish tint of the sclera; the child eats poorly, gains weight poorly (children under one year old), strange taste preferences in the form of eating chalk, earth, plaster, sand, clay (older children); the child is more restless, often cries, is naughty, sleep is disturbed. Sometimes children with a severely neglected degree of anemia are indifferent to others, indifferent and apathetic.

Signs of anemia can be: Brittle nails and hair, dull color and lack of hair growth, wiping hair on the back of the head, hair loss, chapped lips and seizures at the corners of the mouth, very dry, rough skin, smooth shiny tongue (like varnished).

Children who have anemia of unknown etiology are included in a comprehensive examination for a mandatory examination for helminthic invasion: often infection with worms leads to massive anemia.

Prevention. Anemia is prevented by monitoring the course of pregnancy, and proper nutrition of the mother, proper nutrition of the child, proper introduction of complementary foods, a variety of foods and dishes, the introduction of foods rich in vitamins and iron into the child's diet, a sufficient amount of fruits and vegetables in the child's complementary foods. Every mother needs to know how anemia in children manifests itself, its causes and prevention, in order to prevent this disease in her child. During pregnancy, the mother should eat iron-rich foods.

The most iron-rich foods of animal origin are beef liver, tongue, rabbit and horse meat. Slightly less iron in beef, even less in chicken meat. Of the fish, mackerel contains the most iron.

Among fruits and vegetables rich in iron are apple, cabbage, peas, beets, beans, almonds and blueberries.

Diagnostics. Diagnosis of IDA is based on the indicators of a clinical blood test. These include: the number of red blood cells, the level of hemoglobin, the color index, the average content of hemoglobin in an erythrocyte, the average concentration of hemoglobin in an erythrocyte, the average volume of red blood cells, the morphology of red blood cells, the number of reticulocytes.

Treatment. Iron preparations are a group of medicines containing salts or complexes of bi- and ferric iron, as well as their combinations with other drugs. Mainly used for the treatment and prevention of iron deficiency anemia. Combined preparations included in this group must contain at least 30 mg of the main active ingredient in terms of elemental iron, otherwise they cannot be used in the treatment of iron deficiency conditions and will be classified as vitamins or general tonics. Thus, with anemia in children, self-treatment is unacceptable: even increased nutrition, additional complementary foods and vitamin preparations may not work if anemia is caused by hidden serious diseases. Self-medication can only start the process of the disease and seriously complicate the health of the child. Preparations for the treatment of anemia are recommended by the doctor, depending on the degree of anemia in the child and its form. It is necessary to take medicines strictly in accordance with the instructions of the doctor, with constant monitoring of the level of hemoglobin in the child's blood and his well-being.

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