

CHANGES IN ERYTHROCYTE PARAMETERS IN PATIENTS WITH AUTOIMMUNE HEMOLYTIC ANEMIA

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Introduction. The main symptoms of autoimmune hemolytic anemia are anemia, jaundice, and dark urine. The patient may experience fatigue, palpitations, shortness of breath, and low blood pressure. If the disease becomes chronic, the liver and spleen may enlarge, and gallstones may form. In severe cases, or after the spleen has been removed, dangerous blood clots may form in up to 20% of patients (3).

Laboratory tests to confirm AIGA show the following changes: varying degrees of anemia and an increase in young blood cells (reticulocytes)(1). When examining the blood smear under a microscope, erythrocytes have a different size and color (anisocytosis, polychromasia). Hot type AIGA is characterized by spherocytes, and cold type by erythrocyte adhesion (agglutination). It is important to remember that in 37% of cases reticulocytes may be low - this indicates that the antibodies are also damaging the young cells in the bone marrow(2). Material and method. 50 patients diagnosed with AIGA at the multidisciplinary clinic of the TDTU were divided into three groups depending on the duration of the disease. The first group included 20 patients (up to 6 months), the second group included 18 patients (from 6 months to 2 years), and the third group included 12 patients (from 2 to 4 years). The control group consisted of 10 patients.

Result. According to the results of the study, blood parameters in all groups of patients with AIGA decreased significantly compared to the control group. For example, the number of erythrocytes (RBC) was recorded in the range from 2.11 to $2.29 \times 10^{12}/l$ depending on the duration of the disease, which is significantly lower than the indicator in healthy people ($3.3 \times 10^{12}/l$). The hemoglobin level in patients was also significantly lower. The indicators in the groups (from 59.61 to 67.56 g/l) were almost two times lower than the norm in the control group (109.58 g/l). At the same time, a sharp increase in the number of reticulocytes in the blood was observed.

Conclusion. Patients with AIGA, regardless of the duration of the disease, have a pronounced anemia syndrome. In this case, a statistically significant decrease in the number of erythrocytes by 1.5 times and the amount of hemoglobin by almost 2 times compared to the norm is accompanied by a sharp increase in reticulocytes (reticulocytosis). This indicates a high compensatory activity of the bone marrow against the background of pathological hemolysis.

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