ASSESSMENT OF BLOOD SATURATION IN PATIENTS WITH ANEMIA ON THE BACKGROUND OF TRANSFUSIONS OF DONOR RED BLOOD CELLS

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Introduction

Anemia is a frequent manifestation of many diseases of the blood system, as well as a complication of chemotherapy for tumor diseases, worsens overall survival and quality of life. Transfusion of donor erythrocytes (TE) is used for its correction in severe cases. The effectiveness of anemia correction is evaluated according to clinical data and on the basis of changes in hemogram parameters, blood gas transport.

The purpose of the work. To compare the effectiveness of erythrocyte transfusions in hematological and surgical patients with anemia.

Materials and methods. Two groups of patients were studied. The first group (n = 28) — patients with chronic anemia (patients with oncogematological profile): with acute myeloid leukemia (n = 7), primary myelofibrosis (n = 2), chronic myeloid leukemia in the blast crisis phase (n = 4), myelodysplastic syndrome (n = 4), multiple myeloma in stages II and III (n = 7), non-Hodgkin's lymphomas in stage III–IV (n = 4); Iu age was 65 years. The second group (n = 12) — the comparison group — included patients with acute anemia after bleeding of traumatic genesis, I was 36 years old. The initial indicators of the hemogram for TE were the hemoglobin level less than 80 g / l, hematocrit — less than 25%. The target value of hemoglobin was a level of more than 80 g/l and a decrease or complete disappearance of anemia symptoms. The effectiveness of TE was evaluated according to the clinical symptoms of anemia and an increase in hemoglobin, hematocrit, as well as an increase in the saturation of blood obtained from the peripheral vein (SvO2)

Results. After transfusions of erythrocytes (Iu = 2 doses), a similar increase in hemoglobin and hematocrit was found in both groups : in group 1, the level of Hb increased from 64.1 ± 2.7 g/l to 90.2 ± 1.7 g/l, Ht - from 20.1 ± 0.8% to 28.9 ± 0.7%, in the second group In the group, the level of Hb increased from 65.9 ± 3.0 g/l to 88.3 ± 3.2 g/l, Ht — from 19.6 ± 0.9% to 26.7 ± 1.4%.There was also an increase in the saturation of venous blood, however, in the first group SvO2 increased from 42.0 ± 3.3% to 57.6 ± 4.1%, in the second — from 51.3 ± 1.9% to 69.0 ± 1.3%. a comparative analysis of the frequency of achieving venous blood saturation ≥60% (it is believed that with SvO2 60%, the patient has no oxygen starvation of tissues) showed that in the 1st group after TE, this indicator was observed in 67.9% of patients, in the second - in all (100%) patients. The data obtained indicate that 32.1% of patients with

oncohematological profile still retain hypoxia at the level of microcirculation after transfusion of erythrocytes, despite reaching the level of Hb >80 g /l, Ht > 25%. Therefore, such patients with low SvO2 values (< 60%), it is necessary to continue transfusion of erythrocytes until the concentration of Hb ≥ 100 g / l increases, the level of Ht ≥ 33%.

Conclusions. The study shows the importance of assessing the saturation of venous blood in patients with hemoblastosis. In the case of low SvO2 levels (< 60%), peripheral tissue hypoxia persists in patients, therefore they need to increase the threshold of hemoglobin (up to 95-100 g/l) and hematocrit (up to 33%) with transfusions of erythrocyte components of blood.

Literature

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