CORRECTION OF ANEMIA BY TRANSFUSIONS OF DONOR ERYTHROCYTES IN PATIENTS WITH APLASTIC ANEMIA RECEIVING IMMUNOSUPPRESSIVE THERAPY

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Introduction

Aplastic anemia (AA) is a disease associated with the failure of the hematopoietic bone marrow, accompanied by pancytopenia of varying severity. Anemic syndrome is a natural manifestation of the disease. One of the main criteria for achieving partial remission (CR) in AA patients is independence from blood components in previously transfusion-dependent patients. Transfusion support is required in the initial stages of the disease for most patients, but its frequency and volume can vary significantly and do not always depend on the severity of the disease.

Research objectives. To assess the need for erythrocyte transfusions (TE) for the erection of anemia in the period before the achievement of CR in AA patients receiving immunosuppressive therapy (IST).

Materials and methods. The medical documentation of 15 patients was analyzed. Among the examined patients, 8 men and 7 women aged 19 to 62 years (Me = 30 years).The diagnosis of severe aplastic anemia (TAA) was established in 12 patients, non-severe AA (NAA) -3 patients. Combined IST, including antithymocytic immunoglobulin (ATG) and cyclosporine, was performed in 13 patients (11 with TAA and 2 with NAA), cyclosporine monotherapy was performed in 2 patients (1 with TAA and 1 with NAA). Transfusion need was assessed by the number of transfused doses of erythrocyte-containing media for the period of the first 3 months from the beginning of IST and further in subsequent periods of 3 months (up to 6, 9, 12 months). Six patients underwent replacement therapy using erythrocyte suspension in the amount of 4 to 10 units even before the beginning of IST. However, most of the patients received transfusions of filtered erythrocytes during the IST.Single patients, along with filtered erythrocytes, periodically received transfusions of washed erythrocytes and erythrocyte suspension.

Results. Of the patients we observed, 13 achieved CR with independence from TE within 12 months. In 6 people (40%), HR was obtained within the first 6 months, and by 9 months. HRD was detected in 10 patients (67%). The exception was 1 patient with NAA on monotherapy (remission was achieved after 14 months) and TAA with combined IST, but a relatively late course of ATG (remission after 13 months). In the remaining patients, there was no clear

dependence of the timing of remission and, accordingly, transfusion independence on the severity of the disease. In the whole group, the need for TE was 7.9 ± 7.0 doses from the beginning of IST to the achievement of CR. At the same time, in patients with NAA, it took from 3 to 5 doses to correct anemia, in patients with TAA — from 1 to 22. The largest volume of TE was noted in a patient with TAA with insufficiently active (due to a severe condition and intolerance to a number of preparationstov) IST. There was no significant difference in the need for TE depending on age in the study group. During the achievement of HR, a significantly higher number of transfused doses of erythrocytes was noted in the group of men compared with women (12.1 ± 8.5 vs. 4.1 ± 1.4, respectively). The reason for such differences remains unclear. The total volume of transfusions of donor erythrocytes naturally decreased in the observed patients in each of the selected periods (the first 3, then 6, 9 and 12 months), amounting to 51-29-20-18 doses, respectively.

Conclusions. The obtained results indicate that the main transfusion load during the correction of anemia falls on the first 3 months from the beginning of IST, and subsequently decreases as remission becomes. The timing of achieving remission and transfusion independence seems to be influenced not only by the severity of AA, but also by the adequacy of the IST.

Literature

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