Therapy with depleted erythrocyte concentrates and the occurrence of post-transfusion reactions with patients treated from bone marrow insufficiency at the daily blood transfusion hospital in Stip

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INTRODUCTION

- The application of chemotherapy and irradiation therapy in patients with malignant diseases is suppressing the bone marrow, and because of that, a reduced peripheral cellular level with symptoms of severe anemic syndrome presents itself.

MATERIAL AND METHODS

- Patients with bone marrow insufficiency originale from Eastern part of Macedonia. Patients with hypoplasia, aplasia, osteomyelosclerosis and patients with malignant diseases are included, where a suppression of bone marrow occurred due to chemotherapy of applied irradiation therapy. Leucocytes-depleted erythrocyte concentrates are obtained by filtration of erythrocyte concentrates with Baxter-Sepacell RS-2000 and Paul-Purecell RN filters. Analysis samples of hematological basic parametars are taken from the system before and after the filtering and are treated with automated blood cell counter.

AIM

- To present the number and adverse post-transfusion reactions with patients suffering from bone marrow insufficiency, with transfunded depleted erythrocyte concentrates.

RESULTS

- In the past six years, a total of 69 patients with insufficiency of the bone marrow were transfunded. From the total number, 11 (15,94%) were patients with aplasia and hypoplasia of the bone marrow, 8 (11,59%) were patients with osteomyelosclerosis. 12 (17,39%) with malignant homeopathy, 38 (55,07%) with neoplasm, of which 21 (55,26%) are treated with chemotherapy and 17 (44,73%) patients are treated with combined chemotherapy and irradiation therapy.

CONCLUSION

- For treatment of anemia with patients suffering from bone marrow insufficiency and the possibility of obtaining frequent febrile, allergic and other post-transfusion reactions, we transfused erythrocyte concentrates with depleted Le. They minimize the sensibility of patients who are exposed to Le-Ag and the risk of febrile post-transfusion reactions is reduced (FPTR) in patients who are already alloimmunized from LeAg. Leucocytes are vectors and reservoirs of many infectious agents, such as viruses (CMV, HIV, HTLV, EBV) and also some bacteria. With their removal, the unwanted later post-transfusion complications are reduced. Despite frequent transfusions, we didn't had severe post-transfusion side effects, so we recommended therapy with leucocyte-depleted erythrocyte concentrates with patients suffering from bone marrow insufficiency.