single center retrospective study of the impact of Blood Transfusion on Hematopoietic Stem Cell Transplantation Outcome

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Background: Allogeneic hematopoietic stem cell transplantation (AHSCT) is a potentially curative therapy for many malignant and nonmalignant disorders. ***Objectives:*** The aim of our retrospective study was to investigate the impact of blood transfusion on the outcome of AHSCT. ***Patients and methods***: A total of 50 adults patients with hematological malignancies received allogeneic bone marrow transplantation were analyzed, regarding the incidence of infection, acute and chronic GvHD and overall survival, for 3 months before to 1 year after AHSCT. The patients were divided into two groups according to the amount of transfused RBCS and platelets unites. The low transfusion group (<10 unites ,n=30) and high transfusion group (>10unites,n=20), ***Results***: The incidence of infectious episodes and GvHD development were significantly higher among the high transfusion group than that in low transfusion group (p=0.006) and (p=0.02) respectively. In the low transfusion group the incidence of aGvHD was 3.3% and of the chronic GvHD was 3.3%while in high transfusion group the incidence of aGvHD was 15% and of chronic GvHD was 20%. Regarding the overall survival though during the first year the overall survival was significantly lower in the high transfusion group 25% than that in the low transfusion group 46.7% (p=0.02) however the difference between the two groups was not significant (p=0.09) during the median survival time (2 years). ***Conclusion:***These data indicate that higher transfusion history was associated with increased risk of infection , development of GvHD and worse overall survival in patients received AHSCT, thus new rational for improving transfusion practice for such patients is warranted based on symptoms driven criteria .