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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 non-malignant disorders.

Objectives: The aim of author's single centre retrospective study was to investigate the impact of blood transfusion on the outcome of AHSCT.

Patients & Methods: A total of 50 adults patients with haematological malignancies received allogeneic bone marrow transplantation were analysed, regarding the incidence of infection, acute and chronic GvHD and overall survival, for three months before to one year after AHSCT. The patients were divided into two groups according to the amount of transfused RBCS and platelets units. The low transfusion group (<10 units, 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 a GvHD was 3.3% and of the chronic GvHD was 3.3% while in high transfusion group the incidence of a GvHD 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 (Two 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.

Note: