

COMPARABLE EFFICACY OF FLUDARABINE/CYCLOPHOSPHAMIDE VS ATG/CYCLOPHOSPHAMIDE CONDITIONING REGIMEN FOR APLASTIC ANEMIA PATIENTS RECEIVING MATCHED-SIBLING DONOR TRANSPLANTS: INSIGHTS FROM A SINGLE-CENTER EXPERIENCE IN PAKISTAN

Waseem Ahmed, Shafaq Abdul Samad, Uzma Zaidi

National Institute of Blood Disease and Bone Marrow Transplantation, Karachi, Pakistan

We conducted a single-center retrospective analysis of 130 aplastic anemia patients, who received matched sibling donor transplants between 2011 to 2019. Patients were divided into 2 subgroups one group received ATG/Cy, whereas the other group received Flu/Cy. The ATG based conditioning was given to patients who had financial subsistence from the provincial government.

RESULTS: Majority of the patients were categorized as severe aplastic anemia 93.8% (n = 122). Median age was 16 years. The estimated overall survival (OS), relapse-free survival (RFS), and GvHD-free survival (GFS) were found to be 69.0%, 66.7%, and 64.3% in the ATG/Cy group, while 76.1%, 72.7%, and 62.5% in the Flu/Cy group, respectively, after a median follow-up of 30 months. Stem cell source was GCSF-mobilized peripheral blood (PBSC) in 62.3% (n = 81), bone marrow in 26.2% (n = 34), and both PBSC and bone marrow in 11.5% (n = 15) of cases. Overall incidence of GvHD was 18.2% (n = 16) in Flu/Cy versus 4.8% (n = 2) in the ATG/Cy group showing significant statistical difference (p = 0.038)

CONCLUSION: In this study, the Flu/Cy-based conditioning manifested comparable outcomes, conferring to the speculation; the OS, GFS, and RFS were similar and so were the incidences of primary graft failure (PGF) and secondary graft failure (SGF). Hence, it may be an appropriate alternative conditioning regimen for developing countries with limited health care resources.