

## COMPARISON OF POST-TRANSPLANT OUTCOME BY CONDITIONING INTENSITY IN PATIENTS WITH MINIMAL RESIDUAL DISEASE NEGATIVE ACUTE MYELOID LEUKEMIA (MRDNEG AML)

Silvia Park<sup>1</sup>; Byung Sik Cho<sup>2,3</sup>; Hee-Je Kim<sup>2,3</sup>

<sup>1</sup>Department of Internal Medicine, Seoul St. Mary's Hematology Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea, <sup>2</sup>Department of Internal Medicine, Seoul St. Mary's Hematology Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea., <sup>3</sup>Leukemia Research Institute, College of Medicine, The Catholic University of Korea, Seoul, Korea

Introduction: Relapse is a major concern with RIC, and identification of patients at equivalent risk of relapse irrespective of conditioning intensity is needed.

Method: Between June 2012 and Jan 2018, a total of 567 AML patients underwent allogeneic hematopoietic stem cell transplantation (HSCT). Among them, we selected 243 patients who fulfilled i) intermediate or poor risk group by NCCN (2017.Version 3), ii) CR or CRi at HSCT, iii) received either MAC (BuCy or CyTBI) or RIC (FluBu2TBI400) transplant from matched sibling donor (MSD) or matched unrelated donor (MUD), and iv) having Wilm's tumor (WT1) gene expression results before transplant.

Results: The median WT1 gene expression level (bone marrow) was 56.7 copies/104ABL. When WT1 250 copies/104ABL were used as cut-off value for MRD, 205 out of 243 patients (84.4%) achieved MRDneg complete remission (CR) at transplant. Among these MRDneg CR patients, 164 (80.0%) and 41 (20.0%) patients received MAC and RIC, respectively. Over the median follow up duration of 31.8 months, there was no difference in overall survival (OS), disease free survival (DFS), cumulative incidence of relapse (CIR) and non-relapse mortality (NRM) between MAC and RIC groups ( $p=0.546$ ,  $p=0.766$ ,  $p=0.371$  and  $p=0.277$  for OS, DFS, CIR and NRM). In multivariate analysis adjusted for age, donor type, risk group and ATG use, conditioning intensity was not prognostic for post-transplant relapse or survival in MRDneg CR AML patients.

Conclusion: Similar outcomes were observed between RIC and MAC when patients achieved MRDneg complete remission (CR) at transplant.