homozygotes. The DFS of one year was 72.2% when the donors have three or more aKIR, while if the donor had one or two aKIR., the DFS of one year was 81.8%.
Conclusions: In HLA-identical sibling HSCT, the incidence of aGVHD and severe aGVHD were higher in group of donor/recipient KIR completely identical. The differential expression of the number and subtype in aKIR may be related to the reduce occurrence of disease relapse and better clinical outcome in HLA-identical sibling HSCT.

393

DAY +11 METHOTREXATE (MTX) MIGHT REDUCE THE RISK OF ENGRAFTMENT SYNDROME (ES) AND ACUTE GRAFT-VERSUS-HOST DISEASE (GVHD) AFTER UNRELATED BONE MARROW TRANSPLANTATION (U-BMT) WITH REDUCED-INTENSITY CONDITIONING REGIMENS

Yakushijin, K.[1,2], Asakura, Y.[1], Maeda, T.[1], Kurosawa, S.[1], Hiramoto, N.[1], Kim, S.-W.[1], Mori, S.-I.[1], Tanosaki, R.[1], Heike, Y.[1], Takaue, Y.[1], Tobinai, K.[1], Fukuda, T.[1] [1] National Cancer Center Hospital, Tokyo, Japan; [2] Kobe University Hospital, Kobe, Japan

The combination of calcineurin inhibitor and short MTX is often used for GVHD prophylaxis after allogeneic stem cell transplantation. Although day +11 MTX is sometimes omitted due to severe complications, the benefit of day +11 MTX is controversial. To evaluate the role of day +11 MTX, we retrospectively reviewed the medical records of 142 pts with various hematological malignancies who underwent U-BMT between 2000 and 2007 with myeloablative (MAC, n = 96) or reduced-intensity conditioning (RIC, n = 46) regimens. Patient characteristics are shown in table 1.

Table 1. Patient Characteristics

		Myeloablative (MAC, n=96)		Reduced-intensity (RIC, n=46)	
Dose of MTX		3 doses (n=14)	4 doses (n=82)	3 doses (n=12)	4 doses (n=34)
Age median (range)		34 (22-48)	39 (9-58)	57 (19-67)	56 (10-64)
Disease	AML	9	32	7	13
	ALL	0	12	0	1
	MDS	0	14	1	7
	CML	1	11	0	2
	ML	1	9	3	7
	other	3	4	1	4
Risk group	High risk	11	57	10	22
	Low risk	3	25	2	12
HLA status	identical	12	75	12	34
	mismatched	2	7	0	0
Calcineurin inhibitor	Cyclosporine	5	38	7	24
	Tacrolimus	9	44	5	10

MAC consisted of 12 Gy TBI-based (n = 50) or Bu (po 16 mg/kg or iv 12.8 mg/kg, n = 46)-based regimen, and RIC consisted of Bu (po 8 mg/kg or iv 6.4 mg/kg) in combination with either 2CdA (0.66 mg/kg) or Flu (180 mg/m^2). GVHD prophylaxis consisted of cyclosporine (starting dose 3 mg/kg/day civ, target whole blood conc. 250-350 ng/ml) or tacrolimus (starting dose 0.03 mg/kg/day civ, target whole blood conc. 10-20 ng/ml) with short MTX scheduled on day +1, +3, +6, and day +11 (10-7-7-7 mg/m^2). No pts received ATG. Among the 142 pts, planned day +11 MTX was omitted in 26 pts (MAC; n = 14, RIC n = 12) due to various reasons including grade 3 mucositis (n = 21), febrile neutropenia (n = 12), grade 2 jaundice (n = 4), grade 2 mucositis (n = 3), pneumonia (n = 1), and sepsis (n = 1). ES was diagnosed when pts presented with ≥ 2 of the following symptoms within 96 hrs of neutrophil engraftment: (1) fever (> 38°C) without an identifiable infectious reason, (2) skin rash (> 25% of BSA) not because of drug reactions, (3) weight gain (> 2.5% of baseline body weight), and (4) hypoxia (SPO2 < 94%), or pulmonary infiltrates. The median follow-up in surviving pts was 1115 days (100-3071). In both MAC and RIC groups, median day of neutrophil engraftment, OS, NRM and relapse rate at 2 yrs were not significantly different between the 4-dose and 3-dose groups (MAC; day +17 vs +16, 59% vs 48%, 23% vs 25%, and 26% vs 34%, RIC; day +18.5 vs +16.5, 45% vs 58%, 43% vs 28%, and 20% vs 19%, respectively). In the MAC group, there were no significant differences of the incidences of ES and grade II to IV acute GVHD. In the RIC group, however, the incidence of ES was significantly lower in the 4-dose group (26% vs 58%, p = 0.02) and the incidence of grade II to IV acute GVHD tended to be lower (48% vs 75%, p = 0.07) than in the 3-dose group. In conclusion, our study suggested that day +11 MTX might reduce the risk of ES and acute GVHD.

394

EVALUATION OF MYOCARDIAL AND HEPATIC T2* MRI CHANGES IN β-THALASSEMIA MAJOR HEMATOPOIETIC STEM CELL TRANSPLANTATION RECIPIENTS AND THE EFFECT OF IRON OVERLOAD THERAPY

Hamidieh, A.A., Moeininia, F., Alimoghaddam, K., Jalili, M., Shamshiri, A., Ghavamzadeh, A. Tehran University of Medical Sciences, Tehran, Islamic Republic of Iran

Background: Iron deposition in the heart and liver are considered to play a central role in the long term outcome of ex-thalassemic hematopoetic stem cell transplantation (HSCT) survivors. There is a lack of correlation between heart and liver iron load. Serum ferritin and liver iron values have almost no predictive value for cardiac iron deposition. This study was conducted in order to assess myocardial and hepatic iron concentrations using T2* MRI and detection of any effect of transplantation itself and chelation therapy in ex-thalassemic patients who survived beyond six months.
Methods: In this prospective, single-center study, during 14 months, 72 major thalassemia patients candidate for allogeneic HSCT were evaluated for iron overload by base line liver and cardiac T2* MRI, liver biopsy and serum ferritin and subsequently 26 patients assessed again by T2*MRI and ferritin on 6th months after successful HSCT. Finally deferoxamine was prescribed for 12 ex-thalassemic patients at this time according to abnormal myocardial or hepatic T2* values. T2* MRI and serum ferritin were performed for these patients at the end of 6th months of chelation.
Results: At baseline, the cardiac T2* was normal (> 20 ms) in 46 (63.9%) of recipients, but 69 (82%) had hepatic siderosis. The liver T2* (mean, 4.27 ± 4.22 ms) was correlated significantly with serum ferritin levels (r-0.8, p < 0.001), but not with myocardial values (mean, 25.3 ± 10.5 ms). Although serum ferritin increased during six months after HSCT (mean1351± 941 to 5068 ± 7674 ng/ml), the myocardial and hepatic T2* measures were not changed significantly. After about 6 months chelation therapy in 12 ex-thalassemic patients the liver T2* improved (5.49 ± 2.74 to 4.21± 2.6 ms, p0.008) with concomitant improvement in serum ferritin (mean 5068 ± 7674 to 2450 ± 1824 ng/ml), but differences in ferritin levels were not significant. The cardiac T2* measures were not improved during this time.
Conclusion: T2*MRI is an apropriate method for baseline evaluation and monitoring of chelation therapy in β-thalassemia major HSCT recipients, where as serum ferritin level may be confusing.

395

IMPORTANCE OF CYCLOSPORINE LEVELS IN THE EARLY PERIOD AFTER REDUCED INTENSITY CONDITIONING ALLOGENEIC STEM CELL TRANSPLANTATION

García, I.C.[1], Valcárcel, D.F.[2], Piñana, J.L.R.[1], Martino, R.B.[1], Barba, P.S.[2], Novelli, S.C.[1], Sureda, A.B.[1], Briones, J.M.[1], Delgado, J.G.[1], Brunet, S.M.[1], Sierra, J.G.[1], Sierra, G.J.[1] [1] Hospital de la Santa Creu i Sant Pau, Barcelona, Barcelona, Spain; [2] Hospital Vall d' Hebrón, Barcelona, Barcelona, Spain

Background: The importance of cyclosporine (CsA) levels to prevent acute graft versus host disease (aGVHD) has been well documented after conventional conditioning allogeneic stem cell transplatation (Allo-SCT), but its value in the reduced intensity conditioning (RIC) setting has not been evaluated. The aim of the study