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Update on a pilot study: Flumeltbi peripheral blood HLAhaploidentical stem cell transplantation with post-transplant cyclophosphamide and bortezomib (Cy2Bor3)

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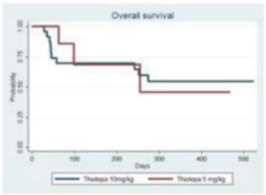
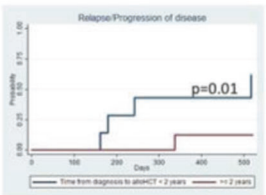
analysis, no prognostic factors were observed in terms of OS, PFS and NRM. However, having an interval between diagnosis and alloHCT ≥2 years was associated to decreased relapse risk (18 months NRM: 7% vs 52%, p = 0.01). Thiotepa dose was not significantly associated to clinical outcomes.

Baseline characteristics of alloHCT recipients	
Recipient age, years, median (range)	55 (33, 70)
Sex male/female, n (%)	18 (60) /12 (40)
Diagnosis, n (%)	
DLBCL	5 (16.7)
MCL	7 (23.3)
FL	9 (30)
HL	3 (10)
WM	2 (6.7)
Others	4 (13.3)
Disease status at transplantation, n (%)	
CR	19 (63.3)
PR	10 (33.4)
Active/progressive disease	1 (3.3)
Previous lines of therapy, n (%)	
1-2	4 (13.3)
3	18 (60)
≥4	8 (26.7)
Previous autologous HSCT, n (%)	18 (60)
Time from diagnosis to alloHCT, n (%)	
<2 years	9 (30)
≥2 years	21 (70)
DRI*	
Low	13 (43.3)
Intermediate	15 (50)
High	1 (3.4)
HCT-CI	
0	14 (46.7)
1-2	13 (43.3)
≥3	3 (10)
Donor selection	
MRD	6 (20)
MUD	8 (26.7)
Haploidentical	15 (50)
Identical twin	1 (3.3)
Donor age, years, median (range)	34 (18, 60)
Stem cell source, n (%)	
PBSC	30 (100)
Conditioning regimen, n (%)	
Low dose thiotepa (5 mg/kg)	7 (23.3)
High dose thiotepa (10 mg/kg)	23 (76.7)
GVHD prophylaxis, n (%)	
CsA/Tacro + MTX	5 (16.7)
CsA/Tacro + MMF + PT-Cy	24 (80)
CsA	1 (3.3)

Impact of the thiotepa dose on overall survival:



Impact of the interval of years between diagnosis and alloHCT on relapse/progression of disease:



Conclusions: In our series, RIC TBF allows efficient disease control at the expense of increased incidence of severe early toxicities. Despite a higher NRM, OS was similar to other RIC regimens used for lymphoid malignancies. This regimen could be considered for fit patients with high-risk lymphoid diseases.

Disclosure: The authors declare no conflicts of interest

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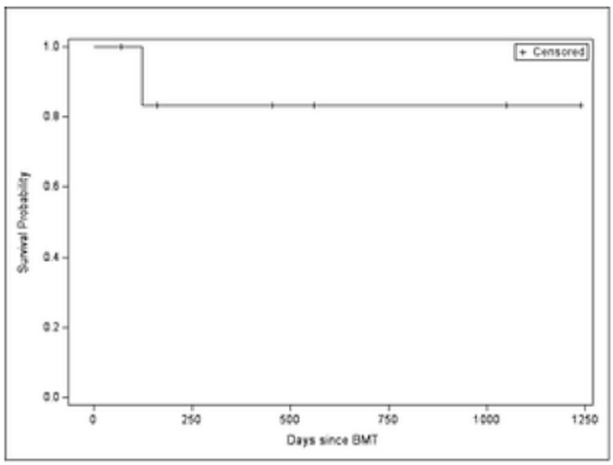
Background: Bortezomib (Bor) can inhibit the proliferation of dendritic cells (DCs) and block the expression of co-receptors CD80, CD86 and secretion of cytokines IL-12 and TNF-α and hence the ability of DCs to activate T cells. We started a pilot study incorporating the addition of bortezomib to post-transplant cyclophosphamide (PTCY) in the setting of peripheral blood (PB) HLA-haploidentical stem cell transplantation (Haplo-SCT).

Methods: This is a single center open label pilot study. Eligible patients received Fludarabine Melphalan TBI 200 cGy as conditioning followed by haplo-SCT and PTCY. Bor was administered at 1.3mg/m2 on day+1, 4 and 7. Tacrolimus and MMF were started at day+5

Results: Seven patients were enrolled so far, five males and 2 females. Median age was 58 years (26-60). Donors were 3 brothers, 3 sons and 1 mother. Disease risk index was high in 3, intermediate in 3 and low in 1. Three patients had AML, two had ALL and MM, one had ALL and one had CML. CMV recipient status was negative in one and positive in 6. Median HCT-CI was 3(1-4). Median CD34 and CD3 infused were 4.13 x10^6 and 1.7x10^8/ kg recipient respectively, all were cryopreserved except 2. Four patients had CRS before Cy infusion with ASTCT grade of 1. Six patients had grade 3 hypokalemia around day+ 4-5. Five patients had grade 3 mucositis and 2 had grade 1. Four patients had neutropenic fever and one patient had engraftment fever. Median neutrophils and platelets engraftment were 16 and 26 days respectively. Chimerism post SCT was > =99% donor at day 30 for all patients. Six patients are off tacrolimus with median time to be off it was 187.5 days. Five pts had aGVHD with maximum grade of I in 3 patients, II in one patient and III in one patient at a median 50days post SCT. None developed early hematuria, four had late hematuria with highest grade of 4. Two patients were positive for BK virus. One patient had reactivation of CMV, 2 had EBV and one had adenovirus, all resolved. Three pts had HHV6 that resolved. Of the 5 patients who were evaluable, one developed moderate chronic GVHD. So far the median time to follow up is 455 days (70-1239) with relapse and subsequently death in one patient who had high risk AML with 3 different inductions prior to SCT. . At 1 year for 4 evaluable patients IgG were >400 mg/dl and CD4 > 350 cells/ul.



Survival Probability

Conclusions: Cy2Bor3 post PB Haplo-SCT was well tolerated. Although small number of patients and limited but encouraging results so far. The trial is ongoing.

Clinical Trial Registry: ClinicalTrials.gov ID: NCT03850366.

Disclosure: Nothing to declare

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Allogeneic hematopoietic cell transplantation for hodgkin lymphoma post anti-pd1 inhibitors: Incorporation of post-transplant cyclophosphamide in the conditioning regimen

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