

duration of onset of bacteremia after UCBT with a median of 15 days and the duration of 3-34 days, compared with after UBMT. Graft-vs-host disease of grade II, III or IV occurred in 2 of 10 patients who survived more than 100 days after UCBT and in 15 of 40 after UBMT. The TRM and EFS at 2 years post-transplant in patients at an early disease stage were 12.5 % and 75.0 % after UCBT and 6.5% and 68.7% after UBMT. **Conclusion:** UCB transplantation in adults is associated with delayed neutrophil recovery and longer duration of bacteremia at early time points after transplantation. The TRM (12.5%) and EFS (75.0%) at 2 years after transplantation were similar to our experience of UBMT. Thus, parallel to the search for a matched unrelated donor, searching for an adequate UCB unit should be initiated.

### II0

#### REDUCED-INTENSITY CONDITIONING IS VERY EFFECTIVE IN PATIENTS WITH INDOLENT LYMPHOPROLIFERATIVE DISORDERS AND HAS LIMITED SUCCESS IN ACUTE LYMPHOBLASTIC LEUKEMIA. EXPERIENCE IN A SINGLE INSTITUTION IN MEXICO

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The published experience of reduced-intensity allogeneic stem cell transplantation (ASCT) for acute lymphoblastic leukemia (ALL) remains limited. Some studies have been shown that the graft-versus-leukemia effect is not powerful enough to make this conditioning regimen useful in ALL. On the other hand, indolent lymphoproliferative disorders (ILD) has been associated, in some studies, with high mortality when reduced-intensity ASCT was used as a piece of a treatment. We evaluated the outcome and survival of both ALL and ILD patients who received a reduced-intensity SCT in our hospital. A total of 20 high risk patients in ALL group and 10 patients in ILD group (3 with chronic lymphocytic leukemia and 7 with indolent non Hodgkin lymphoma) were included. The median age for both groups was 19 years and 43 years respectively. All patients received cyclophosphamide IV 300 mg/m<sup>2</sup> and fludarabine 30 mg/m<sup>2</sup> for 3 days (-6, -5, -4) and cyclophosphamide IV 50 mg/kg/day or busulphan 4 mg/kg/day for 2 days (-3, -2) as conditioning regimen. In 20 patients (67%) it was administrated as ambulatory setting. Daily oral cyclosporine and methotrexate (days +1, +3, +5) were delivery as prophylactic GVHD. The median CD34+ cell dose infused was  $5.37 \times 10^6$  in ALL and  $5.2 \times 10^6$  in ILD group. Neutrophil recovery to  $0.5 \times 10^9/l$  was observed at day +13 (median) in both groups. Acute and chronic GVHD was developed more frequently in ILD group than in ALL group (40% vs. 25%). Relapse was higher in ALL group (65%) than in ILD group (10%) and this complication was the principal cause of death in both groups (50% vs. 10%). In all, 19 patients died, 16 (80%) patients in ALL group and 3 (30%) patients in ILD group. We conclude that reduced-intensity ASCT in high-risk ALL patients could not be the best choice for treatment. We believe that this conditioning regimen can be used successfully in treatment of patients with ILD, however, in ALL more studies and new ideas are needed.

### III

#### REDUCED INTENSITY CONDITIONING (RIC) FOR ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANTATION (HCT) IN PATIENTS WITH AML EVOLVED FROM MDS OR THERAPY RELATED AML

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Between 1/1/2000 and 12/31/2004, 22 patients (pts) with either AML with antecedent MDS (18 pts) or therapy related AML (4 pts) received (RIC) for allogeneic HCT from either HLA matched sibling or unrelated donor (MRD) (11 pts each). The median age was 60.5 yrs (range 30-71). The majority of patients were in remission (CR = 12, CR<sub>2</sub> = 2) but 8 pts had active disease (3 induction failure, 3 relapse and 2 untreated); marrow blasts in this group ranged from 8% to 80% with <10% circulating blasts at

HCT in all but one. Cytogenetic risk groups were unfavorable (8), intermediate (13) and favorable (1). Fludarabine (FLU) and melphalan (Mel) was the (RIC) 19 pts; FLU and TBI 200 cGy in 2 pts and FLU/BU, in 1 pt GVHD prophylaxis was CSP + MMF in 10 pts, CSA + MMF + MTX in 11 pts, and FK 506 + MTX in 1 pt. Stem cell source was PBSC in 21. Median time to WBC >500 was 15 days (6-27) and pts >20000 was 18 days (1-32 d). Grade 2-4 acute GVHD occurred in 12 pts (54%) while 15 pts (67%) at risk developed chronic GVHD. The day 100 mortality was 23%. With a median follow up of 24 months, 11 pts are alive with 10 in remission for an OS of 49% and a DFS of 45%. Six pts relapsed (5 sibling and 1 URD) (relapse rate, 36%). There was no significant difference between OS and EFS based on age, cytogenetics, remission status or donor source although there was a trend ( $P = .06$ ) for relapse base on donor source. Reduced intensity conditioning offers improved survival for patients with high risk AML when compared to conventional chemotherapy. Treatment related mortality is acceptable but further efforts are needed to reduce relapse in related donors.

### II2

#### REDUCED INTENSITY MATCHED RELATED (MRD) AND MATCHED UNRELATED (MUD) ALLOGENEIC STEM CELL TRANSPLANTATION (RIST) IN ADULTS WITH MYELODYSPLASTIC SYNDROME (MDS) AND ACUTE MYELOID LEUKEMIA (AML): A SINGLE CENTER EXPERIENCE

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**Introduction:** The median age of diagnosis in AML is more than 60 years, and adequate management of AML in older patient's remains controversial. Due to an increase in comorbid illnesses, graft versus host disease (GVHD) with aging and arbitrary age limit for allogeneic stem cell transplantation is 55 years in many centers. RIST can potentially reduce treatment related mortality of older patients and provides the curative potential of allogeneic cell therapy. **Methods:** We analyzed the outcome of 23 consecutive patients with AML or MDS, undergoing RIST from a MRD or MUD. Conditioning regimen for both was fludarabine (180 mg/m<sup>2</sup>) and busulfan (PO 8 mg/kg or IV 6.4 mg/kg), plus total body irradiation (4 Gy) for MUD. GVHD prophylaxis consisted of cyclosporine and mycophenolate mofetil. **Results:** 12 patients underwent a MRD and 11 had a MUD RIST. Median age at transplant was 56 (range 42-67). 52% of the patients were male. Ten patients had MDS; 12 AML and 1 myelofibrosis. 16 received peripheral blood stem cells while 7 received bone marrow transplants. Median time from diagnosis to transplant was 402 days. All patients had normal engraftment (median 17 days, platelets; 16 days, neutrophils). Survival at 100 days was 91% 1 year overall survival is 48%, with a median follow-up of 435 days (range 53-816 days). There was no difference in survival between MRD and MUD transplants. Three patients died of progressive disease, 1 due to secondary malignancy and 8 from transplant related mortality. The cumulative incidence of acute GVHD was 0 in 17%; grade I 13%; grade II 48%; III 13% and IV 9% while 2/23 had limited; 9/23 extensive chronic GVHD. **Conclusion:** These data suggest that RIST is a feasible treatment option in older patients with poor-prognosis MDS and AML. Our survival data are comparable to similar non-myeloablative transplant approaches for these disease/age groups of patients.

### II3

#### ANTIGEN SPECIFIC T-CELL RESPONSE TO ASPERGILLUS FUMIGATUS IN UNRELATED ALLOGENEIC TRANSPLANT RECIPIENTS

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**Introduction:** Invasive aspergillosis infection is a significant cause of morbidity and mortality in patients who undergo unrelated donor allogeneic transplantation. The post transplantation period of pre-engraftment immunosuppression is most commonly associated with