The patients diagnosis and the type of their new malignancy

NO.	Primary Diagnosis	New Malignancy	Days till new malignancy
1	MDS	Lymphoma	954
2	AML-M4	Lymphoma	282
3	AML-M2	Lymphoma	594
4	NHL Small non clear cell, Burkit	Gastric cancer	451
5	NHL Large cell anaplastic Lymphoma, Ki 1 +	CML	31
6	Fanconi Anemia	Lymphoma	301
7	CML Ph1 +, BCR ABL +	Lymphoma	165
8	CML Ph1 +, BCR ABL unknown	ALL	83

Table N.1

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A NEW CONDITIONING REGIMEN IN THALASSEMIA MAJOR CLASS 3 AN EXPERIENCE OF IRAN FROM 2004 TILL 2006

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Objective: Resent studies have showed the efficacy of Fludarabin (Flu) and Busulfan (BU) as a conditioning regimen in senile and high risk leukemia patients. This regimen has good safety profile and transplant related complication such as cardiopulmonary and liver dysfunction is venial. We used Flu (40 mg/m^2/4 days) and Bu (4mg/kg/4days) for patients who are at risk of rejection, Graft Versus Host Disease (GVHD) and cardiopulmonary complications (Thalassemia class 3) as myeloablative conditioning regimen for HLA match sibling allogeneic stem cell transplantation.

Methods: Since August 2004 till September 2006, six patients with Thalassemia class III received blood and marrow transplantation from their HLA-identical siblings. One patient received bone marrow and five patients received peripheral blood stem cell transplantation. Conditioning regimen was Flu 40 mg/m^2 (from day–6 to -2) and Busulfan 4 mg/kg/day (from day –5 to -2). GVHD prophylaxis regimen was cyclosporine.A 3mg/kg /day/IV (days –3, +7), then 12.5 mg/kg/day/PO.

Results: Median age at time of transplantation was 19 years (Age range: 11-26.5), Male/Female:5/1. Median Mononucleated cells were 5.02/kg $\times$ 10^8 and median CD34 was 2%. Median time of absolute neutrophil count $\geq 0.5\times10^9$ /L was +20 and Median time of platelet recovery $\geq 20\times10^9$ /L was +31. Two patients (33.3%) developed acute GVHD (grade I: 1, grade III: 1) and three patients (50%) developed chronic GVHD (limited). Three patients (50%) had Mocusitis and two ones (33.3%) had Nutropenic fever and three patients had elevated liver enzymes. Till now all patients are alive and we have just one relapse.

Conclusion: According to this study Flu/BU as a conditioning regimen is safe and effective in Thalassemia class 3 patients.

Key Words: Blood and marrow transplantation, Thalassemia class 3.

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LATE EFFECTS IN SURVIVORS OF HODGKIN'S AND NON-HODGKIN'S LYMPHOMA TREATED WITH AUTOLOGOUS HEMATOPOIETIC CELL TRANSPLANTATION: A REPORT FROM THE BONE MARROW TRANSPLANT SURVIVOR STUDY

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We conducted a retrospective cohort study to evaluate late effects of autologous hematopoietic cell transplantation (HCT) in Hodgkin's lymphoma (HL) and non-Hodgkin's lymphoma (NHL) survivors. Eligible subjects received HCT at either City of Hope or University of Minnesota between 1974 and 1998, were 18 years or older at the time of interview and had survived for 2 years or more after HCT. A random sample of siblings of study participants was recruited for comparison. All participants (n=92 HL, n=184 NHL, n=319 siblings) completed a 238 item questionnaire. Median age at HCT was 39 years (range, 13-69) and median followup was 6 years (range, 2-17) since HCT. Median age at completion of survey was 46 years (range, 21-73) for HCT survivors and 44 years (range, 19-79) for siblings. Patient characteristics were similar between HL and NHL groups except a higher proportion of NHL survivors received total body irradiation (TBI) as part of their conditioning (83% vs 40%). Compared to siblings (after adjusting for age at interview and sex), HCT survivors reported a significantly higher frequency of cataracts (14% vs 4%), dry mouth (14% vs 1%), hypothyroidism (19% vs 7%), bone impairments (osteoporosis and avascular necrosis) (7% vs 3%), congestive heart failure (4% vs 0.3%), exercise induced shortness of breath (10% vs 3%), neurosensory impairments (33% vs 20%), second cancers (8% vs 2%), and inability to attend work or school due to health impairments (16% vs 2%). 84% subjects rated their overall health as good, very good or excellent compared to 95% siblings ($p<0.001$). Multivariate models adjusted for age at HCT and time since HCT simultaneously considered the effects of sex, diagnosis (HL vs. NHL) and conditioning regimen (TBI vs. no TBI). Compared to those receiving no TBI, patients treated with TBI based conditioning had higher risks of cataracts (odds ratio (OR) 4.9, 95% CI: 1.5-15.5) and dry mouth (OR 3.4, 95% CI: 1.1-10.4). Females had a greater likelihood of reporting hypothyroidism (OR 2.5, 95% CI: 1.3-4.7), osteoporosis (OR 8.7, 95% CI: 1.8-41.7), congestive heart failure (OR 4.3, 95% CI: 1.1-17.2) and abnormal balance, tremor or weakness (OR 2.4, 95% CI: 1.0-5.5). In conclusion, HL and NHL survivors of autologous HCT have a high prevalence of long-term health-related complications and require continued monitoring for late effects with timely introduction of appropriate interventions.

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5 CASES OF PERMANENT ALOPECIA AFTER VARIOUS CONDITIONING REGMIENS COMMONLY USED IN BONE MARROW TRANSPLANTATION

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Alopecia, a common side effect of chemotherapy, is usually temporary and reversible within few months. Irreversible alopecia has been reported (36 patients in 5 reports) after high dose chemotherapy (HDC) and hematopoetic stem cell transplantation (HSCT) especially related to busulfan and cyclophosphamide containing conditioning regimens; however the overall incidence is not known. We describe 5 patients who experienced permanent alopecia after HSCT including 2 males and 3 females. Median age at transplant was 43 years (Range 37-55), 3 were Caucasians and 2 African American. Diagnosis included: Ewing sarcoma (1), multiple myeloma (2), CML (1) and AML (1). Three patients received autologous peripheral blood stem cell transplant (ASCT) one of them had tandem transplant, one underwent matched sibling allogeneic transplant and one received umbilical cord blood transplant. Total of 760 transplants were performed in our institution during that period (1997-2004). Conditioning regimens included BuCyVP16 (busulfan, cyclophosphamide and etoposide) in 2 patients, one of these patients received 2nd ASCT with CyTBI, BuCy (2 patients) and CyVP16TBI (1 patient). Patients were followed in our outpatient clinic with median follow up from last transplant of 40 months (Range 19 to 58 months). Two of the females and one of the male patients had complete alopecia, while the other male and female had alopecia areata. In all five cases however, there was no re-growth of hair. In one patient who received BuCy, there was evidence of chronic graft vs host disease which had completely resolved after 6 mos treatment. The current disease status is complete remission (3), and partial remission in two patients with multiple myeloma. All patients received Cy, 4 received Bu, three had VP-16 and 2 patients had TBI containing combinations. This data shows that permanent alopecia is a significant long-term side effect of HSCT and can be seen across the spectrum of diseases and transplant types. Our