204 QUALITY OF LIFE AND PSYCHOLOGICAL FUNCTIONING AFTER ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANTATION (ALLOG-HCT) FROM MATCHED SIBLING COMPARED TO UNRELATED DONORS

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Recent studies have shown similar survival outcomes between matched unrelated donor (URD) and matched sibling donor (MSD) transplants. Little data evaluates how this impacts quality of life (QOL) and psychosocial functioning (PF). The purpose of this study was to evaluate and compare QOL between pts undergoing URD vs MSD allo-HCT.

We prospectively collected QOL and PF assessments in 239 pts who underwent allo-HCT from 2004-2010 at our single institution. Pts completed three validated psychometric tools—Functional Assessment of Cancer Therapy-Bone Marrow Transplantation (FACT-BMT), Coping Inventory (Brief COPE), and Profile of Mood States Short Form (POMS)—at five time points: baseline, post-transplant, day 100, 365. Repeated measures analysis of variance (RMANOVA) and linear mixed model analysis was used to compare QOL scores by donor type and time. Secondary endpoints included overall survival (OS), relapse-free survival (RFS), graft-versus-host-disease (GVHD), and relapse. Outcomes were estimated using Kaplan-Meier and cumulative incidence methods.

Of 239 pts identified, 47 were excluded due to lack of baseline psychometric measurements. Of the remaining 192 pts, 108 received HSCT from URD and 84 from MSD. There were no significant differences in age, race, gender, comorbidity index, diagnosis, type of transplant (myeloablative vs reduced intensity), and CD34+ dose. There was a difference between time to transplant (7.1 mos for URD vs 5.2 for MSD; p = 0.014); preparative regimen (p = 0.003); and GVHD prophylaxis (p = 0.001). Differences were also seen in days until neutrophil (11 vs 16) and platelet (17 vs 23) recovery, as well as length of hospital stay (27 vs 35, p < 0.001); with MSD having shorter times as compared with URD. There were no significant differences between baseline QOL and PF between the groups. We saw trends indicating a general decrease in QOL post-discharge with improvement by day 365; but no differences noted between MSD or URD groups. URD transplants had higher Social Well Being scores at day 365; but no other parameters were significant. With a mean follow up of 33–40 months, there were 45 (40%) URD and 31 (37%) MSD transplant pts alive. There were no significant differences between URD and MSD transplant in regards to GVHD (p = 0.19), relapse (p = 0.09), OS (p = 0.96), or RFS (p = 0.80). This study demonstrates that this also correlates with similar QOL and PF between the two groups.

205 EARLY READMISSION RATES AFTER AUTOLOGOUS AND ALLOGENIC HEMATOPOIETIC PROGENITOR CELL TRANSPLANTATION (HCT)

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Thirty-day readmissions are being targeted as a way to improve cost and quality of medical care. Patients who undergo HCT often require extensive medical care and frequent hospitalization. It has been demonstrated that readmissions within 30d of a transplant hospitalization are associated with increased mortality. In this study, we retrospectively reviewed all 30d readmissions at our institution in 2010 after an auto or allo-HCT.

Ninety-nine auto-HCT were done in 2010, with 11 readmissions. Ten pts (10%) were readmitted after their initial hospitalization within a median time of 4d (range 1-8). Diagnoses included 2 HL, 2 AML, 2 ALL, 2 MDS, 2 MF, 1 AML, 1 LL, and 1 DLBCL. Seventy-five (75%) readmissions occurred before hospitalization. The most common reason for readmission was fever/infection (63%). Other reasons included gastrointestinal, testinal symptoms (33%) and thromboembolism (11%). There was one death secondary to failure to thrive and subsequent sepsis, occurring 5d after readmission.

There were a total of 62 allo-HCT done in 2010. Eighteen pts (29%) were readmitted within 30d of their initial transplant hospitalization. Median time to readmission was 9.5d (range 2-30). The majority of these admissions (n = 14, 78%) were within the first 15d of hospital discharge. Diagnosis included 7 AML, 4 ALL, 4 MDS, 1 MF, 1 NHL, and 1 AA. Donor type included 4 UCB, 3 MUD, and 5 MSD. There was no correlation with CIBMTR co-morbidity index scores, which ranged from 0-6. Six (33%) pts were subsequently readmitted at least one more time (range, 2-4 times) within 30d from previous hospitalization. Nine (50%) of the 30d readmissions after allo-HCT were due to fever/infection, followed by 5 (28%) for GVHD-related symptoms, and 4 (22%) for symptom management (chest pain, nausea/vomiting, diarrhea). There were 3 deaths in this early readmission group, all related to infection or GVHD complications. Median time to death after readmission was 31d (range 27-96).

We previously reported readmissions after HCT portend poor survival (Mohan et al 2010; Bajajyan et al 2010). The current analysis revealed that these readmissions tended to occur early, within a median time of 4d (for auto) and 10d (for allo). At our institution, we have implemented a review committee that evaluates all 30d readmissions. In addition, we instituted a stringent follow-up policy in which pts are seen within 3d of discharge. Further study of early re-admissions may decrease their frequency and improve quality of medical care.

206 EVALUATION OF FACTORS ASSOCIATED WITH DAYS OUT OF THE HOSPITAL FOR PATIENTS UNDERGOING UMBILICAL CORD BLOOD TRANSPLANTATION

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Background: Umbilical cord blood transplantation (UCBT) is a feasible option to treat hematologic malignancies in patients lacking a suitably matched conventional donor. However, the median time to hematopoietic recovery after UCBT is prolonged compared to conventional donor transplants, and as a result UCBT patients may spend more time hospitalized for complications in the first 100 days post transplant. We evaluated risk factors associated with prolonged hospitalization in patients undergoing UCBT.

Methods: We performed a retrospective analysis of patients receiving UCBT at the University of Washington (UW) and the Seattle Childrens Hospital (SCH), between January 2006 and April 2011. Fifty-two patients (62%) were conditioned with cyclophosphamide (CY) 60 mg/kg, fludarabine (FLU) 75 mg/m2 and total body irradiation (TBI) 1320 cGy; 19 (23%) with Treosulam 14 mg/m2, FLU 200 mg/m2 and TBI 200 cGy; and 13 (15%) with CY 50 mg/kg, FLU 200 mg/m2 and either TBI 200 or 300 cGy. GVHD prophylaxis consisted of cyclosporine and MMF. The primary outcome was the number of days alive and out of the hospital within the first 100 days post-transplantation. Linear regression models were used to estimate differences in the primary outcome between patient groups. Variables considered included age, sex, race, institution, disease risk, CMV serostatus, comorbidity score, conditioning regimen, TBI dose and number of donor units.

Results: A total of 84 patients were included in the analysis; 57 (68%) were adult and 27 (32%) pediatric. Nine (11%) patients received a single graft whereas 71 (84%) and 4 (5%) received double and triple grafts, respectively. Fifteen (18%) patients received ex-vivo expanded CD34+ units. Sixty-nine (82%) patients had leukemia, 7 (8%) had a lymphoproliferative disorder, and 8 (10%) had MDS/myeloproliferative disease. Thirteen (15%) patients died in the first 100 days. The median number of days alive and out of the hospital was 54 (range 0-92). In both univariate and multivariable analyses, only transplantation at SCH, non-Caucasian race and high risk disease were significantly associated with fewer days alive and out of hospital [Table 1].

Conclusion: UCBT recipients spent over one-half of the first 100 days after transplant hospitalized, age, race and disease risk were the most important predictors. Future directions for research...