2 - 41).The cumulative incidence(CI) of severe acute GvHD(grade II-IV) was 7% at 100 days.3-yr CI of chronic GvHD was 25%.3-yr OS and PFS was 69% and 66% for sibling vs 42%(p = 0.08) and 41%(p = 0.14) for unrelated donors.3-yr NRM and RR was 14% and 25% for sibling vs 31%(p = 0.15) and 28%(p = 0.27) for unrelated donors.Outcomes for patients who had high-risk(HR) features prior to transplant(poor risk cytogenetics,FLT3 ITD mutation,previous MDS,secondary AML) were compared to outcomes of those with standard risk(SR) disease.The HR group(n = 37) had OS and PFS at 3 yrs of 50% and 47% vs 60%(p = 0.13) and 60%(p = 0.1) for SR group(n = 33).3-yr NRM and RR was 21% and 25% in the HR group vs 23%(p = 0.19) and 24%(p = 0.18) in the SR group(p = 0.19).The 23 patients ≥60 yrs(20 unrelated and/or HR) had a 3 yr OS of 38% and PFS of 38%. In conclusion, many patients with HR AML who attain CR maintain durable remissions following RIC allo-HSCT with the FMC regimen. Although outcomes are marginally less good than seen in patients with SR AML receiving RIC transplant, they are much better than would be achieved with current chemotherapy regimens.The low NRM in sibling allo-HSCT together with the relatively low RR support further exploration of FMC conditioned allo-HSCT in all patients with SR AML with a matched sibling donor.

385

PRACTICE VARIATION IN PHYSICIAN REFERRAL FOR ALLOGENEIC HEMATOPOIETIC CELL TRANSPLANTATION

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Hematologic malignancy patients who are not referred by their primary Hematologist or Medical Oncologist suffer disparate access to allogeneic hematopoietic cell transplantation (HCT). However, systematic investigation into physician, system, and patient factors relevant to this decision making is lacking. Accordingly, we surveyed a nationally representative random sample of practicing Hematologists/Medical Oncologists identified through the AMA Masterfile. The survey content was organized in three sections: (I) Vignette based decision making according to best-worst scaling; (II) examination of physician, system and patient factors relevant to decision making; and (III) respondent socio-demographic information. A modified Dillman approach was utilized to encourage survey response rate. From 1,200 surveyed, a total of 113 physicians responded. Of these, 68% were male, 62% identified as White/non-Hispanic, 79% practiced in non-academic settings, and 80% reported spending 75-100% of their professional effort in clinical care. From best-worst scaling data provided by physicians in response to clinical vignettes, we detected significantly increased odds for non-HCT referral according to age (age 60 vs. 30, OR 8.3, 95% CI 5.9-11.7, $p < 0.0001$), race (African American vs. Caucasian, OR 2.4, 95% CI 1.9-2.9, $p < 0.0001$), and insurance coverage (no coverage vs. coverage, OR 6.9, 95%CI 5.2-9.1, $p < 0.0001$). Four attribute-specific Wald tests reject equivalence in odds ratios across the four diseases (MDS, ALL, CML, AML) at a p-value less than 0.05, indicating condition-specific variability. Physician (perception of HCT risks), system (insurance coverage), and patient (age, social support, co-morbid illness) factors were strongly endorsed by respondents as important determinants of their HCT referral practices. The majority (64%) of physicians indicated that patients do not have equal access to HCT consultation. Qualitative comments provided even greater clarity to perceived barriers to HCT referral, largely focused on lack of insurance coverage and need for increased education of practicing Hematologists/Medical Oncologists on timing and indication for HCT referral. These data speak to important factors relevant to HCT referral practices, and highlight several opportunities for education and intervention to reduce current disparities in access to HCT.

386

ALLOGENEIC STEM CELL TRANSPLANTATION IN SECONDARY ACUTE MYELOID LEUKEMIA AND MYELODYSPLASTIC SYNDROME: OHSU EXPERIENCE

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Therapy related acute myeloid leukemia (t-AML) and myelodysplastic syndrome (t-MDS) have poor outcomes with conventional chemotherapy. The only curative treatment is allogeneic hematopoietic cell transplantation (HCT). Secondary AML evolving from MDS (s-AML) has a similar poor prognosis with conventional antileukemia therapies.

In this retrospective study, the transplant outcomes of 91 adult patients with t-AML (n = 19), t-MDS (n = 19) and s-AML (n = 53) treated with allogeneic HCT at OHSU from January 1997 to December 2010 were assessed.

The median age of patients was 55 years (range: 21-72). Median age for t-AML, t-MDS, and s-AML was 51, 59, and 56 years, respectively. Poor risk cytogenetics were found in 18% of t-MDS pts and 38% of the AML pts. Donors were mostly matched unrelated (61%), and a myeloablative regimen was used for conditioning in 68% of the patients. Two-year overall survival (OS) and relapse incidence were 44% and 43%, respectively, for all cohorts. NRM was 13% at 100 days and 33% at 2 years. s-AML patients had significantly improved OS compared to t-AML and t-MDS patients (HR = 0.5, p = 0.02).

Four adverse risk factors impact on DFS and OS in t-AML/MDS pts (Litzow, Blood 2010). Outcomes in our s-AML patients were assessed for these factors: age > 35 years; poor-risk cytogenetics; t-AML not in remission or advanced t-MDS; and donor other than an HLA-identical sibling or a partially or well-matched unrelated donor. One-year event-free survival for our subjects with 0-1, 2, or 3-4 of these risk factors was 83%, 63%, and 34%, respectively (p = 0.01), but OS was not different (p = 0.28). However, pre-transplant KPS ≤ 80; intermediate or poor cytogenetics; and URD mismatched or other relative donor impacted with one-year OS for subjects with 1, 2, or 3 of these risk factors = 62%, 24%, and 33%, respectively (p = 0.04).

In conclusion, the CIBMTR scoring system for t-AML/MDS was not fully validated in our t-MDS, t-AML, and s-AML patients, but appeared overall consistent.

However, performance status, rather than age, was more predictive for OS.

Also, s-AML had improved OS compared to t-AML and t-MDS patients, suggesting that these are biologically different diseases.

These data also indicate the need for the identification of prognostic factors for secondary AML/MDS patients, to permit accurate prediction of allogeneic HCT outcomes in this unique patient population.

387

IMPROVED OUTCOME OF ELDERLY PATIENTS AFTER REDUCED INTENSITY ALLOGENEIC HEMATOPOIETIC CELL TRANSPLANTATION (HCT)

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Advanced age has been associated with higher mortality after myeloablative (MA) allogeneic hematopoietic cell transplantation (HCT). Reduced intensity conditioning (RIC) and non myeloablative (NM) regimens have been developed to expand allogeneic HCT to the aging population. A retrospective analysis of patients aged 60 and older was performed and outcome of patients transplanted with MA, RIC and NM regimens were assessed.

159 patients transplanted between January 1998 and December 2010 for hematological malignancies were analyzed. 41 patients underwent MA, 100 patients underwent RIC and 18 patients underwent NM conditioned HCT. 62 patients (39%) had a matched related donor, 67 (42%) had a matched unrelated donor and 30 (19%) had a mismatch donor HCT.

Overall survival (OS) was significantly influenced by conditioning regimen (p = 0.03). One year OS was 59%, 30% and 28% for RIC, NM and MA group respectively. 3 year OS was significantly better for RIC at 26% vs. 15% for MA (p = 0.02). There was no significant difference in the progression free survival (PFS) and relapse rate between the three groups. There was trend towards significance for non relapse mortality (NRM) based on conditioning regimen (p = 0.07) and 100 day NRM was 11%, 3.5% and 6% for MA, RIC and NM respectively.