

initiated when the peripheral blood CD34 cell count was $>7/\mu\text{l}$. The target total CD34 cell collection was 5×10^6 cells, and "poor mobilizers" were defined as pts unable to collect this target in 1-2 days of collection.

Results: Prior to mobilization, 80 (53%) pts had previously received thalidomide, and 29 (19%) additional pts had previously been exposed to lenalidomide, with a median treatment duration of 6 months. All 152 pts (100%) successfully collected with one mobilization, 143 pts (94%) successfully collected in a single day, and the median total number of CD34 cells collected was 12×10^6 . 61% of pts collected on D+11 and the rest between D+7 and D+13. Only 2 pts (1%) were subsequently categorized as poor mobilizers, requiring 3 and 4 days to collect. 27 out of 29 pts who had received lenalidomide previously were found to be good mobilizers. The median time to neutrophil engraftment was 11 days, and the median time to a sustained platelet count $>20,000$ without transfusions for 7 days was 16 days. 31 (20%) pts required at least one supportive transfusion during the mobilization process, and a total of 26 (17%) pts required treatment for fevers. No pts developed MDS or AML. Neither age, prior imid exposure, nor any other variables were associated with poor mobilization or engraftment.

Conclusion: VP-16 and G-CSF is an effective and safe mobilization regimen for pts with MM undergoing ASCT, producing excellent stem cell yield with a minimum of pheresis procedures. With this regimen, neither age nor prior imid exposure appear to adversely impact stem cell collection.

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THE MEMORIAL SLOAN-KETTERING EXPERIENCE WITH ALLOGENEIC STEM CELL TRANSPLANTATION FOR T CELL NON-HODGKINS LYMPHOMA

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Introduction: T-cell non-Hodgkins lymphomas (T-NHL) comprise a heterogeneous array of clinical and pathologic entities. Among aggressive NHL, T cell phenotype is a poor risk factor. Currently, there is no universal standard of care regarding therapy. Relying on evidence supporting a graft-versus-lymphoma (GVL) effect in these diseases, investigators have used allogeneic transplant (alloHSCT) to treat T-NHL. Data regarding outcomes following alloHSCT for these patients remains limited.

Methods: We performed a retrospective analysis of 30 consecutive patients (mean age 52, range 5-68) who received alloHSCT for T-NHL at MSKCC, between Jan 1992 and Aug 2008. Histologies included anaplastic large cell (4 ALK-, 4 ALK+), angioimmunoblastic (3), hepatosplenic gamma-delta (5), HTLV-1 associated (1), mycosis fungoides (2), NK/T (2), subcutaneous panniculitis-like T-cell lymphoma (3), peripheral T cell lymphoma, NOS (6). Preparative regimens were ablative (9) or non-ablative (21), grafts were unmodified (15) or ex-vivo T cell depleted (TCD) (15). IPI, PIT and disease status were assessed directly pre alloHSCT. Survival was estimated by the Kaplan-Meier method, and the cumulative incidence function estimated the probability of time to disease relapse (DR). Log-rank test and Gray's test were used respectively to determine whether survival and cumulative incidence functions differed by covariates of interests.

Results: Median follow up for survivors was 38 months. Two-year overall survival (OS) was 60% (95% CI: 40-80). Log-rank test did not reveal an association between OS and prior autoSCT, IPI, PIT, TCD, disease status or degree of myeloablation. Pre-salvage MIB-1/Ki-67 $<25\%$ was associated with improved OS ($p=0.007$). The cumulative incidence of DR at 6 months was 30%. There were no associations between cumulative incidence of DR and IPI, TCD, disease status, degree of myeloablation and MIB-1/Ki-67 score.

Discussion: Two-year OS and DR at 1 year are favorable in this population of T-NHL patients with 47% in durable remission. Pre-salvage MIB-1/Ki-67 $<25\%$ appears to be predictive of OS. However, the ability to test for associations with clinical factors and outcomes is limited by our small sample size and low number of events. This study provides further support for prospective alloHSCT T-NHL trials including use and evaluation of prognostic biomarkers like MIB-1/Ki-67.

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THE EFFICACY AND SAFETY OF VP-16 AND G-CSF AS A MOBILIZATION REGIMEN PRIOR TO AUTOLOGOUS STEM CELL TRANSPLANTATION (ASCT) FOR PATIENTS (PTS) WITH MULTIPLE MYELOMA (MM) AND LYMPHOMA

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Introduction: There remains little consensus about the best means for mobilizing stem cells prior to ASCT. Cytokine alone, usually G-CSF, provides easy scheduling while the combination approaches generally provide higher cell yields and additional cytoreduction. Because of its value as a cytoreductive agent, and its lack of stem cell damaging properties or other toxicities, we investigated the use of mid-dose VP-16 plus G-CSF as a mobilizing regimen.

Methods: Between May 2004 and June 2009, 288 pts with the following diseases were mobilized with VP-16 (375 mg/m² on D#1 and D#2) and G-CSF (5mcg/kg twice daily from D#3 through the final day of collection): MM (152), Non-Hodgkin Lymphoma (98), and Hodgkin Disease (38). In 14 pts, one dose of Rituximab (375 mg/m²) was also given on D#1. 122 pts were female, 166 were male, and median age was 54 yrs (range 19-72). Stem cell collection was initiated when the peripheral blood CD34 cell count was more than 7/ μl . The target total CD34 cell collection was 5×10^6 .

Results: Among all pts, 279 (97%) had stem cells successfully collected after one mobilization. 9 pts (all with lymphoma) required more than one mobilization or bone marrow harvest for yields less than 2×10^6 . 14% of all pts required IV antibiotics or hospitalization for fevers, and 32% of all pts needed at least one RBC or platelet transfusion. One pt developed secondary MDS. The median number of days collecting stem cells was 1 for MM pts and 2 for lymphoma pts, and the median total number of CD34 cells collected was 12×10^6 for MM pts and 6×10^6 for lymphoma pts. 94% of MM pts and 43% of lymphoma pts collected in a single day. The median time to neutrophil engraftment was 11 days for all pts, and the median time to a sustained platelet count $>20,000$ without transfusions for seven days or longer was 16 days for MM pts and 15 days for lymphoma pts. "Poor mobilizers" were defined as pts who failed to collect 5×10^6 cells in one or two days, and included 19% of all pts. 1% of MM pts and 40% of lymphoma pts were "poor mobilizers" ($p<0.001$). The pre-mobilization white blood count ($p=0.01$), platelet count ($p=0.006$) and a CD34 count less than 26/ μl ($p<0.001$) were associated with poor mobilization in lymphoma pts.

Conclusion: VP-16 and G-CSF is an effective and safe mobilization regimen for pts undergoing ASCT with a low incidence of fevers or need for supportive transfusions. A CD34 count $<26/\mu\text{l}$ in lymphoma pts appeared to predict for poor mobilization.