incidence of PJP, suggesting that PJP prophylaxis is not routinely warranted in this patient population. Patients who require systemic corticosteroids post–HSC may be considered for PJ prophylaxis.

151

Long Term Outcomes of Autologous Hematopoietic Cell Transplant (AHCT) Following Thiotepa-Based High-Dose Therapy (HDT) in Patients with Non-Hodgkin Lymphoma (NHL)

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There is little consensus regarding the optimal conditioning regimen for AHCT for NHL. Thiotepa is an alkylating agent with anti-lymphoma properties, but it has limited data as a conditioning agent for AHCT in adult NHL. We report here long-term results of our institutional experience in NHL receiving AHCT following HDT with etoposide, cyclophosphamide and thiotepa (VP-16/CY/TT). Patients received etoposide 1800mg/m2 IV x 1 dose, cyclophosphamide (50mg/kg/dose IV x 3-4 doses), and thiotepa (250mg/m2/dose – 300mg/m2/dose x 3 doses). Forty-three patients were consented and enrolled from November 1997 to June 2009.

Table 1
Baseline Demographics

Characteristics	N=43
Median age, years (range)	55 (27-69)
Male gender, n (%)	22 (51%)
Diagnosis (%)	
Diffuse Large B-cell Lymphoma (DLBCL)	23 (54%)
Follicular Lymphoma	7 (16%)
Transformed follicular lymphoma	2 (5%)
Mantle Cell Lymphoma	4 (9%)
T-cell NHL	7 (16%)
Bone Marrow Involvement	10 (23%)
CNS Involvement	2 (5%)
Stage	
Early Stage (1&2)	14 (32%)
Advanced Stage (3&4)	27 (63%)
Missing	2 (5%)
IPI	
Low (0-1)	17 (40%)
Intermediate (2-3)	23 (54%)
High (4-5)	2 (5%)
Unknown	1 (2%)
Prior therapies, median (range)	2 (1-4)
Remission status before transplant	
Complete Remission 1	8 (19%)
Complete Remission 2	17 (40%)
Complete Remission 3	2 (5%)
Partial Remission	16 (37%)
Autologous stem cell source (%)	
Peripheral Blood	35 (81%)
Bone Marrow	4 (9%)
Both	4 (9%)
Karnofsky Performance Status, median (range)	90 (80-100)
Median CD34 cell dose infused (10^6 cells/kg recipient), (range)	5.3 (1.8-10.5)

Disease characteristics are described in Table 1. Peripheral blood stem cell mobilization utilized cyclophosphamide and filgrastim. All patients received antibacterial, antiviral (acyclovir), and antifungal (fluconazole) prophylaxis along with filgrastim support after stem cell infusion. Median follow up for surviving patients was 4.7 years (range 0.26 years to 15.85 years). Median time to neutrophil and platelet engraftment was 13 and 21 days, respectively. Significant regimen-related toxicities included mucositis (51%), neutropenic fever (72%), diarrhea (26%), and pneumonia (9%). No CNS failures were reported. Secondary malignancies occurred in 3 patients (7%) – two of which were soft tissue sarcomas and one MDS/AML. Progression free survival (PFS) and overall survival (OS) at 5 years was 53% (39% - 71%) and 73% (60% - 89%), respectively. Relapse rates at day +100 and 5 years were 9.4% (95% CI: 2.9% – 20.4%) and 40.1% (95% CI: 24.7% - 55.1%), respectively. Cumulative incidence of non-relapse mortality at day +100 and 5 years was 4.7% (95% CI: 0.8% - 14.0%) and 7% (95% CI: 1.8% - 17.4%), respectively. VP-16/Cy/TT is a well-tolerated conditioning regimen for patients with NHL, with promising long term progression-free and overall survival rates.

152

A Higher Number of CD34+ Cells Collected during Mobilization Is Independently Associated with Successful Engraftment in Autologous Stem Cell Transplant Patients

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We performed a retrospective analysis on patients who underwent PBSC collection and subsequent ASCT at our institution to assess whether efficiency of PBSC mobilization is predictive of engraftment failure.
Methods: We identified 369 patients who underwent PBSC collection between 01/01/2006-8/31/2012 for a first ASCT. We collected data on age, sex, use of lenalidomide or thalidomide ("Imid") prior to mobilization, mobilization regimen, # of collections for final cell dose, # of CD34+ cells infused, and the presence of a positive blood culture within 30 days of ASCT. Quintiles were created for the # of CD34+ cells collected. The primary outcome was engraftment failure defined as not achieving an absolute neutrophil count (ANC) >1000/mL or a platelet count >50,000/mL (no platelet transfusion in </= 7 days) by day 30 post-ASCT. Secondary outcomes were time to ANC and platelet engraftment. We performed a multivariate logistic regression analysis to assess the association of collected CD34+ cells and engraftment failure while adjusting for the other variables. For time to event analyses we used Cox proportional hazard models.
Results: Median patient age was 58 and 56% were male. Patient-reported race was: Black (38%), White (17%), and "Other" (45%). Indications for ASCT were Multiple Myeloma (45%), Non-Hodgkin Lymphoma (41%), Acute Leukemia (9%), Hodgkin Lymphoma (3%), Amyloidosis (1%), and Germ Cell Tumors (1%). The median # of CD34+ cells collected was 7.7x10 ^6/kg (range 2.26-120 x10 ^6/kg) and median # of CD34+ cells infused was 5.3x10 ^6/kg (2.3-45x10 ^6/kg). Median # of collections for transplant dose was 2 (range 1-8). CD34 cells collected were divided into quintiles (cut points: 6.04, 7.57, 9.86 and 17.7x10 ^6/kg). We found that a higher # of collected CD34+ cells during mobilization was associated with less engraftment failure (p=.0067): every increase in