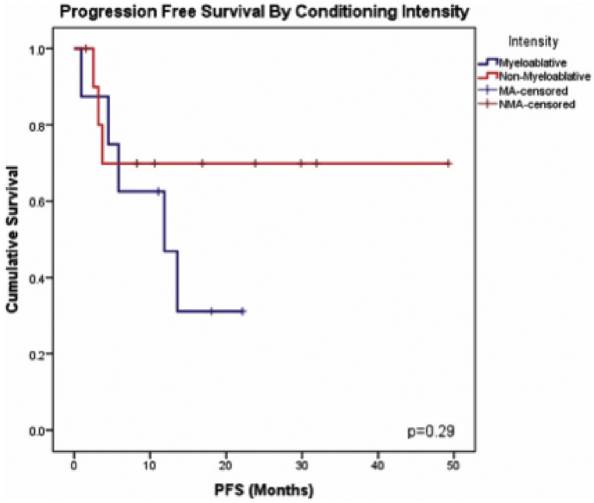

and low TRM and should be further investigated in prospective clinical trials.

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Cyclophosphamide Is an Effective and Well-Tolerated Maintenance Therapy in Multiple Myeloma Patients Undergoing Autologous Stem Cell Transplantation

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Background: Cyclophosphamide (Cy) is used in combination with novel drugs for the treatment of newly diagnosed and relapsed multiple myeloma (MM). In this retrospective study, we report the University of Florida experience with Cy maintenance therapy in patients who could not tolerate or previously failed 1st line maintenance therapy after autologous stem cell transplantation (ASCT).

Methods: We evaluated MM patients who received induction chemotherapy and ASCT from 2000 to 2010. The patients were divided into four groups based on the maintenance therapy prescribed post ASCT or after first relapse: No maintenance (observation), interferon and/or prednisone (I/P), immunomodulatory drugs (IMiDs; thalidomide or lenalidomide), and Cy. Overall 32 patients received Cy for maintenance. Cy was given as 200 mg/day orally x 10 days every 28 days (n=28) or IV 750 mg/m^2 every 21 days (n=4). Progression free survival (PFS) and overall survival (OS) was analyzed using the log-rank test. Group characteristics were studied using descriptive statistics.

Results: 286 patients underwent ASCT; patients with less than six months of post-ASCT follow-up (8) and those treated with allogeneic transplant (21) were excluded. Of the remaining 257 patients, 36 patients received tandem ASCT. The cohort was 45.9% female with a mean age at diagnosis of 57.4 years. Eleven patients had Cy maintenance post ASCT (Cy1) and 21 received Cy after 1st relapse and salvage chemotherapy (Cy2). Median PFS (from ASCT) and OS (from diagnosis) for the entire Cy group was 22.6 and 76 months, respectively. After ASCT, patients in the Cy1 group had similar disease stage distribution but a lower rate of VGPR/CR (18.2%) in comparison to the other groups. There was no significant difference in PFS or OS in the Cy1 group vs. the IMiDs (n=75) or the observation (n= 105) groups. Patients treated with IMiDs maintenance had significantly longer PFS (P=0.001) and OS (P=0.0322) vs. observation. Cy was well tolerated with a dose reduction necessary in one patient due to cytopenias. A similar analysis for Cy2 showed no significant difference in PFS and OS between Cy and other maintenance therapies. Specifically, there was no significant difference in PFS (10.4 vs. 17.6 months, p=0.07) and OS (mean 91.7 vs. 95.7 months, p=0.08) of patients receiving Cy2 when compared to the IMiDs group (n=31). IMiDs maintenance therapy again demonstrated superior OS in comparison to observation (p = 0.018) in the second-line setting. Cy2 was well tolerated with dose reductions necessary in 3/21 patients (cytopenias [2] and nausea [1]); Cy was discontinued in 4/21 due to cytopenias. One patient in Cy1 group developed hypoplastic myelodysplastic syndrome after > 3 years on Cy.

Conclusions: Cy maintenance therapy may be an effective and well-tolerated alternative after ASCT, particularly in the second-line setting, and when other maintenance options are not feasible.

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Reduced Intensity Allogeneic Stem Cell Transplantation Followed By Adoptive Cellular Immunotherapy with Donor Derived LMP Specific-CTLs in Patients with EBV Positive Refractory or Recurrent Hodgkin Lymphoma: A Lymphoma Cell Therapy Consortium (LCTC) Trial

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Background: Lymphoma represents the third most common cancer under 15yrs of age and the most common cancer in adolescents and young adults.(Hochberg/Cairo, BJH 2009) Hodgkin Lymphoma occurs in approximately 7,500 people per yr in the U.S. EBV infection has been suggested to be one of several causative possibilities in its pathogenesis with about 40% of HL being EBV-associated. Autologous T cells directed to LMP1/2 antigens can induce durable responses in high risk patients without significant toxicity.(Bollard, JCO 2014) Although there have been significantly improved outcomes, those with progressive or relapsed disease often require alternative strategies with limited good options.

Objectives: We intend to analyze the toxicity and overall response rate of allogeneic HLA matched donor derived latent membrane protein (LMP) specific-cytotoxic T cell lymphocytes (CTLs) in children, adolescents and young adults (CAYA) with EBV-associated refractory or relapsed Hodgkin lymphoma (HL) following reduced intensity