lowed by either autologous or allogeneic transplant. We report modest TRM, high CR rates and favorable survival following allogeneic transplants. Younger patients with responsive disease undergoing early transplant may have a superior survival and lower TRM. This group may be suitable candidates for allogeneic transplant.

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DOSE-INTENSIFICATION AND STEM CELL TRANSPLANTATION (SCT) FOR HISTOLOGICALLY TRANSFORMED LOW-GRADE FOLLICULAR NON-HODGKIN LYMPHOMA (NHL): A SINGLE CENTER EXPERIENCE

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Introduction: Histological transformation of low-grade follicular NHL to a higher grade occurs in greater than 50% of patients during the course of their disease. Historically, prognosis of these patients is poor following conventional chemotherapy with median survival of less than a year. SCT following dose intensification has been shown in few studies to improve the survival in such patients. **Methods:** We performed a retrospective review of the pathology of 367 adult NHL patients who underwent high-dose chemotherapy and SCT at our institution between 1992 and 2002. We identified 34 patients with follicular low-grade NHL who had transformed to intermediate grade disease (diffuse large cell or transformed large cell-REAL grade III). Patients with transformation to high grade or immunoblastic NHL were excluded. **Results:** Thirty-one patients underwent autologous and 3 underwent allogeneic SCT. Median age at transplant was 53 years (35-69). 70% of patients were male. 26% (9/34) patients had transformed disease at diagnosis (had concurrent low-grade histology) and 74% (25/34) had transformation at first relapse. The median time to transformation from low to intermediate grade was 930 days (630-5430 days). 85% of the patients had advanced disease (stage III-IV) at transformation. Median number of treatments for transformed disease prior to SCT was 2 (1-6). 24 patients were in a partial remission (PR), 6 in a complete remission (CR) and 4 had stable disease at time of SCT. 76% (26/34) patients received a non-TBI based conditioning regimen; 85% received peripheral blood stem cells with a median CD34 dose of 3.45×10^6/kg. All patients showed normal engraftment. Survival at 100 days was 97% (95%CI 91%-100%), the only peri-SCT death occurred in the allogeneic group. Median overall survival (OS) from SCT was 48 months (95%CI 38 mo-not reached) and 4-year OS was 49%. Median disease free survival (DFS) from SCT was 20 months (95%CI of 10-57months) with a 4-year DFS of 18%. The number of prior therapies and time to transformation had no impact on the survival. Subgroup of patients with stable disease (no response to chemotherapy) prior to SCT had the worst outcome. **Conclusion:** Our survival data indicates that one-half of patients with transformed NHL will survive 4 years and one third of the survivors will be disease free. SCT should be considered for eligible patients with chemosensitive histologically transformed NHL.

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UNRELATED DONOR HEMATOPOIETIC CELL TRANSPLANTATION AFTER NONMYELOABLATIVE CONDITIONING FOR PATIENTS WITH POOR RISK, RELAPSED OR REFRACTORY MULTIPLE MYELOMA

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We investigated the feasibility of HLA-matched unrelated donor (URD) hematopoietic cell transplantation (HCT) in patients with advanced stage, poor-risk multiple myeloma after nonmyeloablative conditioning. Eighteen patients, median age 53 years (range, 29-66), were enrolled between 5/2000 and 12/2002. At study entry, 12 patients had relapsed/refractory disease after a preceding autologous HCT, 5 patients had refractory disease following multiple standard chemotherapy regimens, and 1 patient achieved a partial remission (PR) after standard chemotherapy. Nine patients underwent a planned high dose autologous HCT (Melphalan 200 mg/m^2) a median of 75 days prior to URD HCT, including 4 of the 12 patients with relapsed/refractory disease after prior failed autologous HCT. Two of the 18 patients were in complete remission (CR, IBMTR/ABMTR criteria) immediately prior to URD HCT. Nonmyeloablative conditioning consisted of fludarabine (30 mg/m^2 × 3 days) and 2 Gy total body irradiation. A median of 8.6×10^6 $CD34^+$/kg G-CSF-stimulated peripheral blood mononuclear cells were transplanted from URDs matched for HLA-A, -B, -C antigens and -DRB1 and -DQB1 alleles. Postgrafting immunosuppression included mycophenolate mofetil and cyclosporine. Durable engraftment was achieved in 17 of 18 patients. Acute GVHD occurred in 13 (72%) patients and was exclusively grades II and III in 11 and 2 patients, respectively. Chronic extensive GVHD occurred in 11/16 (69%) of evaluable patients. After allografting, 7 patients (39%) achieved CR and 3 (17%) achieved PR, for an overall response rate of 56%. Three patients (17%) died of progressive disease and 4 patients (22%) died of non-relapse causes at a median of 5 months after URD HCT. With a median follow-up of 15 months after URD HCT, 11 of 18 patients (61%) were alive, 6 (33%) in CR, 2 (11%) in PR and 3 (17%) with stable disease (SD). Of the 9 patients who underwent a planned high dose autologous HCT followed by URD HCT, 7 were alive: 5 in CR, 1 in PR and 1 with SD. In summary, URD HCT after nonmyeloablative conditioning is feasible with a relatively low non-relapse mortality and provides a high response rate for patients with relapsed or refractory multiple myeloma. The data also suggest that intensive cytoreductive therapy (autologous HCT) followed by URD HCT may be an effective salvage approach for treating patients with poor risk, chemotherapy refractory multiple myeloma or after failed prior autologous HCT.

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NO ADVANTAGE FOR MORE THAN 4 CYCLES OF VAD PRIOR TO AUTOLOGOUS STEM CELL TRANSPLANTATION FOR MULTIPLE MYELOMA

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Patients with myeloma are typically treated with several cycles of infusional vincristine, doxorubicin and dexamethasone (VAD) prior to autologous stem cell transplant. We reviewed our experience to determine if an optimal number of VAD cycles (Vincristine 0.4 mg/day IV days 1-4, Doxorubicin 9mg/m^2/day IV days 1-4, Dexamethasone 40mg PO days 1-4, 9-12, 17-20) could be identified. The records of 95 patients who underwent autologous peripheral stem cell transplantation for multiple myeloma from 1989 to 2001 were reviewed. Data on each patient's pretransplant chemotherapy regimen, response to initial chemotherapy and toxicity during transplantation were obtained. Seven patients who suffered relapse after initial chemotherapy were excluded during the data analysis. The Kaplan Meier method was used to estimate survival in the remaining 88 patients. Of the 88 patients treated, 62 were treated with VAD for a median of 4 cycles (range 1-9) before transplant. Thirty six patients were treated with 4 cycles of VAD, 9 were treated with less than 4 cycles, 15 received more than 4 cycles and two received an unknown number of cycles. Fourteen patients received VAD either before of after other chemotherapy regimens. Of the 26 patients who were treated with regimens other than VAD, most included melphalan. One patient received an unknown type of chemotherapy. Patients had to demonstrate at least a partial remission in order to proceed with transplantation. Autologous stem cells were harvested after GCSF mobilization. All patients were admitted to the hospital and were treated with Busulfan (1mg/kg every 6 hours for 16 doses, days 1 to 4) and Cyclophosphamide (60 mg/kg daily for 2 doses). GCSF was given after transplant in addition to other standard supportive care practices.