The time to ANC >500 ranged from 8 to 19 days with a median of 10 days. The median length of stay was 21 days. Three patients experienced early treatment-related mortality. With median follow up of 21 months, 45 patients have relapsed. The five year disease free survival (DFS) is 26% and overall survival (OS) is 58%. Thirty-nine patients (44%) remain alive and disease free. There was no difference in DFS (P = .82)or OS (p = .55) between those patients who received 4 cycles of VAD compared to those who received any other number of VAD cycles. There appears to be no advantage to giving anything more than 4 cycles of VAD before proceeding to stem cell transplant.

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THALIDOMIDE MAINTENANCE AFTER AUTOLOGOUS STEM CELL TRANSPLANTATION FOR MULTIPLE MYELOMA

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Autologous stem cell transplantation (ASCT) for multiple myeloma (MM) results in a slow and progressive decline in progression free survival. Thalidomide is an effective salvage agent in patients who relapse with MM after ASCT and produces no myelosuppression. Therefore, it is an attractive drug for maintenance post-ASCT. We gave thalidomide to 21 patients after ASCT for MM. Patients received therapy with VAD chemotherapy until maximal response (maximum 4 cycles), mobilization with cyclophosphamide 4000 mg/m^2 and G-CSF 10 mcg/kg/day and autologous collection followed by ASCT after high dose chemotherapy with melphalan 200 mg/m^2. The median age was 57; the M/F ratio was 1.6/1. Thalidomide was started upon recovery of counts but no earlier than day 30 post-ASCT. The initial dose was 200 mg QD and it was incremented by 200 mg every 2 weeks to a maximum of 800 mg QD. Patients who reported intolerance to the higher dose were tapered to the prior highest tolerated dose and maintained on it. The monoclonal gammopathy was IgG in 20 patients and Ig A in 1 patient. Eleven patients underwent one ASCT and 10 had tandem transplants. The highest sustained dose of thalidomide was 800 mg and the median was 200mg. Therapy was given for 85 to 1306 days (median 357). The median time of follow up was 474 days (range 131 to 2842). The median pre-ASCT, pre-thalidomide and post-thalidomide monoclonal immunoglobulin (Ig) levels were 1320 mg/dl, 1200 mg/dl and 1430 mg/dl respectively. For those progresing on thalidomide the average increase on Ig level was 49.9%. In the entire cohort, 13 patients responded whereas 8 progressed. Thalidomide in a dose of at least 200 mg QD was well tolerated as maintenance post-ASCT in all patients. However, several patients (38%) relapsed while receiving the drug. A randomized placebo controlled study, stratified by known risks for relapse post ASCT is warranted to determine whether thalidomide maintenance delays the progression of myeloma after ASCT.

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PRE-APHERESIS THERAPIES AFFECTING CD34+ APHERESIS YIELD IN MULTIPLE MYELOMA PATIENTS

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Rationale: We posited that the number of cycles of pre-transplant chemotherapies and/or with radiation (RT) directly impacts both the procedural CD34+ cell yield, and in the number of days of apheresis required to harvest an overall adequate number of CD 34+ cells. **Methods:** A retrospective analysis of 47 charts from patients over a 2 year period with multiple myeloma was conducted. We analyzed them for: the type and number of cycles of chemotherapy, age, sex, and prior radiation therapy. Patients were sorted into those receiving 4-6 cycles of VAD and those receiving any other therapies in addition to or instead of VAD. Patients receiving adjuvant RT similarly divided. Median days-to-adequate-stem-cell-yield was determined. Cell viability of the apheresis product was correlated with days-to-white-blood-cell engraftment. **Results:** Patients who received VAD only required less apheresis than those receiving other therapies (median 1 vs. 2 days, p = 0.015). There was no data to suggest that age or sex correlated with the duration of apheresis. There was no correlation between cell viability and days-to-white-blood-cell engraftment. Patients receiving RT in addition to VAD required a median of 1 day of apheresis. A single patient receiving additional chemotherapy along with radiation required 4 days of apheresis. **Conclusion:** Patients receiving 4-6 cycles of VAD alone had faster adequate apheresis yields compared with those receiving additional or other regimens. Radiation did not appear to have an effect on patient's CD34+ yield who also received VAD as therapy. Further studies should be pursued to determine the effects of other adjuvant chemotherapies to VAD, and in patients receiving radiation, in predicting time to CD34+ apheresis yield.

Table. *Median Days of Apheresis Required: Patients Receiving VAD vs. Receiving VAD + Other Adjuvant Therapy*

Chemotherapy Only	Median Days of Apheresis	Radiation + Chemotherapy	Median Days of Apheresis
VAD only (n = 25)	1	RT + VAD (n + 5)	1
Other (n = 22)	2	RT + other chemo (n = 1)	4

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HLA-MATCHED RELATED (MRD) OR UNRELATED DONOR (URD) NONMYELOABLATIVE CONDITIONING AND HEMATOPOIETIC CELL TRANSPLANT (HCT) FOR PATIENTS WITH ADVANCED HODGKIN DISEASE (HD)

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Patients (pts) with progressive HD following autologous HCT have limited treatment options and poor prognosis. We evaluated the utility of nonmyeloablative conditioning and allogeneic HCT for pts ineligible for high dose conventional allogeneic HCT due to age and/or comorbidities. Between December 1998 and October 2002, 27 pts (18 MRD, 9 URD) received 2 Gy total body irradiation alone (n = 7 MRD) or with 90 mg/m^2 fludarabine (n = 11 MRD, n = 9 URD), G-CSF mobilized peripheral blood HCT and postgrafting immunosuppression with mycophenolate mofetil and cyclosporine. Median age was 37 (range 21-65) years. Pts were heavily pretreated and had advanced disease with a median number of prior regimens of 5 (range 2-9). Most pts had prior radiation therapy (25/27) and prior high dose autologous HCT (24/27). Median time between autologous HCT and salvage therapy was 8 (range 2-73) months. Median time between autologous HCT and allogeneic HCT was 16 (range 2-78) months. At allogeneic HCT, 5 pts were in complete remission (CR), 11 in partial remission (PR), 4 had relapsed disease and 7 had refractory disease. All pts engrafted and there were no graft rejections. The overall incidence of acute Grade II, III, and IV GVHD was 33%, 15%, and 4% respectively. Incidence of chronic extensive GVHD was 55% at 1 year. The overall response rate, defined as those pts with measurable disease prior to transplant who achieved a CR or PR after allogeneic HCT was 55%. Currently, 9 of 27 pts are alive; 6 are in CR and 3 have relapsed or have progressive disease (PD), with a