Table 1
Pt Characteristics

Patient Characteristics	N (%)
Median Age (range)	61 years(49-72)
Median Time from First ASCT (range)	49.8 months(19.2-81.9)
Race	
Caucasians	13 (72%)
Others	5 (28%)
Disease status at time of ASCT	
PD	9 (50%)
SD	5 (28%)
PR	1 (5.5 %)
VGPR	2 (11%)
CR	1 (5.5%)
Median creatinine clearance (range)	43.5 (5-59)
Cytogenetic Risk	
Standard	10 (56%)
High Risk	4(22%)
Unknown	4 (22%)
Melphalan Dose median mg/m^2(range)	140 (100-200) {100(2pts), 140(10pts), 180(1pt), 200(4pts)}
Median CD 34 Cell dose x10^6/kg (range)	4.66(2.6-27.5)
Median Engraftment Day (range)	
WBC	11 (9-16)
Platelets	21 (12-61)
Median Days of Hospitalization (range)	19 (11-74)

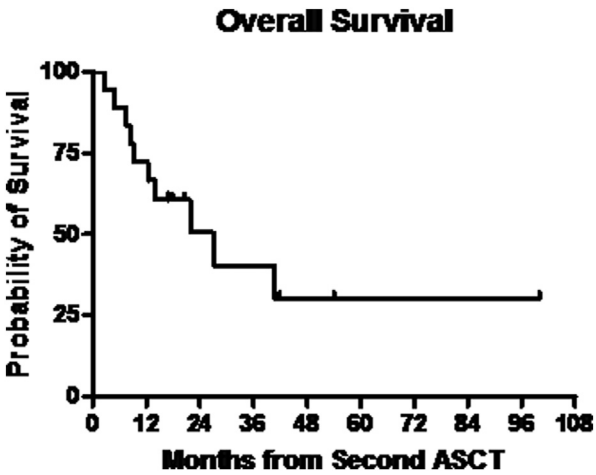

Figure 1.

Figure 2.

similar to the first ASCT in our experience. The utility of maintenance therapy after the second ASCT is not established, but may have contributed to the durable responses seen in some pts assessed herein and deserves to be investigated further.

264

Influence of Race on Outcomes in Multiple Myeloma Patients with Renal Dysfunction Undergoing Autologous Stem Cell Transplant

Lakshminarayanan Nandagopal [1], *Christine Ye* [2], *Marie Ventimiglia* [3], *Muneer H. Abidi* [4], *Lois Jeanne Ayash* [4], *Jeffrey Zonder* [5], *Lawrence Lum* [6], *Joseph Uberti* [4], *Voravit Ratanatharathorn* [4], *Divaya Bhutani* [6], *Abhinav Deol* [4].
[1] *Department of hematology and medical oncology, karmanos cancer intitute, Detroit, MI;* [2] *department of hematology and medical oncology, Karmanos cancer intitute, Detroit, MI;* [3] *BMT Program, Wayne State University Hospital, Detroit, MI;* [4] *Karmanos Cancer Institute/ Wayne State University, Detroit, MI;* [5] *Department of hematology and medical oncology, Karmanos cancer intitute, Detroit, MI;* [6] *Oncology, Karmanos Cancer Institute, Detroit, MI*

Approximately 20% of multiple myeloma (MM) patients (pts) have renal dysfunction(RD) at the time of diagnosis and some more may develop it during the course of their disease. In this retrospective review we studied outcomes in pts of different races with RD undergoing autologous stem cell transplant (ASCT) for MM.

Between June 2005 and December 2013, we identified 107 pts with MM with RD (creatinine clearance $<$ 60 ml/min/1.73 m^2) who were not on hemodialysis and underwent ASCT at our institution. Of the 107 pts, 76 were caucasian(C) pts and 31 were identified as other (O) races (25 African American, one Hispanic, two Middle-eastern, three Asian). There were no statistically significant differences in the characteristics between the 2 groups. Approximately a quarter of the pts received their melphalan dose on the inpatient unit in both groups. During the hospitalization all pts received G-CSF from Day +6 till absolute neutrophil count $\geq$ 1500/μl and antimicrobial prophylaxis with norfloxacin, acyclovir and fluconazole.

The median follow up was 35.9 months (range, 5.1-106.3). One patient in the C group died 98 days after ASCT and had evidence of disease progression. There were no deaths in the O group during the 100 days after ASCT. Table 1 shows post

Table 1
Disease status at Day 100 post ASCT and Maintenance Therapy post ASCT

	Caucasian (N=76)	Other (N=31)	P Value
Disease Status			
CR	26 (34%)	6 (19%)	0.5
VGPR	20 (26%)	12 (38%)	
PR	17 (22%)	6 (19%)	
SD	7 (9%)	4 (13%)	
PD	2 (3%)	2 (7%)	
Not available	4 (6%)	1 (3%)	
Change in Disease Status			
Improved	23 (30%)	13 (42%)	0.66
Unchanged	45 (59%)	15 (48%)	
Worsened	4 (6%)	2 (7%)	
Not available	4 (6%)	1 (3%)	
Maintenance Therapy			
IMid	40 (53%)	9 (29%)	0.15
PI	2 (3%)	1 (3%)	
None	29 (38%)	19 (61%)	
Not Known	5 (7%)	2 (7%)	

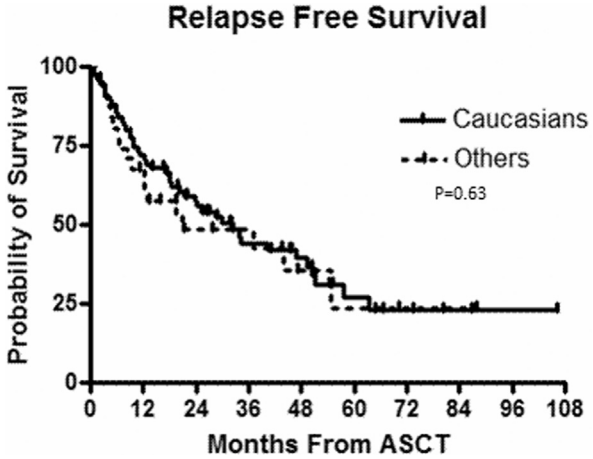

Figure 1.

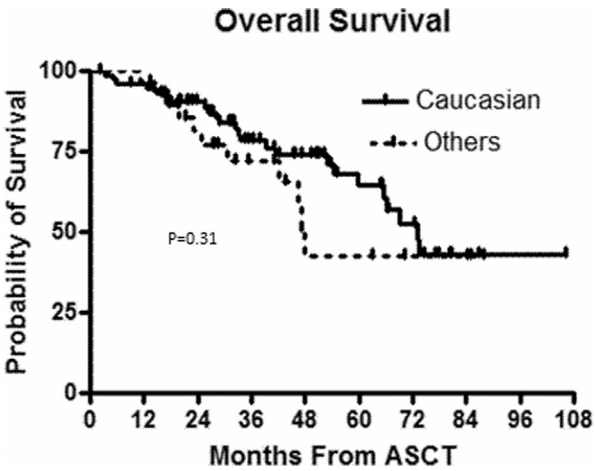

Figure 2.

ASCT disease status and details about post ASCT maintenance therapy. There were no statistically significant differences between the groups in disease status or change in disease status at day 100 post ASCT. Although more patients in the C group received maintenance therapy post ASCT, this difference was not statistically significant. Figures 1 and 2 show the relapse free survival (RFS)and overall survival (OS) of both groups. The median RFS for C and O groups were 32.3 and 20.9 months (p =0.63, log rank), respectively. The median OS of the C and O groups were 73.1 and 47.8 month (p=0.31, log rank), respectively.

Our limited experience suggests that there was no effect of race in the post ASCT outcomes for MM pts with RD. ASCT was safe with acceptable transplant related mortality and good long-term outcomes for MM pts with renal dysfunction.

265

Adequate and Predictable Stem Cell (SC) Collection and Low Incidence of Neutropenic Fever (NF) with Cyclophosphamide (C) and G-CSF Mobilization in Multiple Myeloma (MM) : A Single Center Analysis

Bhavisha Patel [1], Zheng Zhou [2], Juliet Appiah [3], Glen Raffel [4], Zankar Desai [5], Jayde Bednarik [6], Tzafra Tessier [7], Jenna L'Heureux [3], Jan Cerny [8], Muthalagu Ramanathan [8], ***Rajneesh Nath [3].*** *[1] Internal Medicine, UMass Memorial Medical Center, Worcester, MA; [2] Hematology/Oncology, University of Massachusetts, Worcester, MA; [3] Hematology/Oncology, UMass Memorial Medical Center, Worcester, MA; [4] Hematology/Oncology Section BMT, UMass Medical Center, Worcester, MA; [5] Stem Cell Laboratory, University of Massachusetts Medical Center, Worcester, MA; [6] Pharmacy, UMass Memorial Health Care, Worcester, MA; [7] UMass Memorial Medical Center, Worcester, MA; [8] Department of Medicine; Division of Hematology/Oncology, University of Massachusetts, Worcester, MA*

Background: G-CSF alone or C with G-CSF are most commonly used for SC mobilization in MM. The use of C can improve the efficacy of mobilization but is associated with increased neutropenia. It remains largely unclear how dose levels of C in mobilization quantitatively influence the CD34 yield and time to collection; as well as how these outcomes were influenced by patient's age. We evaluated the efficacy and neutropenia secondary to C with G-CSF in MM patients undergoing SC transplantation. Subgroup analysis was done comparing patients greater than 70 years and younger.

Methods: We retrospectively reviewed charts of all patients with MM who mobilized using C with G-CSF at UMass Memorial Medical Center from January 2009 to June 2014.

Results: Fifty-six patients were identified from the stem cell transplant database. There were 36 males (64%) and 20 females (36%). Median age was 62 years (range 43 - 79). The median C dose received was 2548 mg/m2 (range 1318 - 4018mg/m2). The median total CD34 collection was 15.07 x 10e6/kg (range 2.71-113). Median time from C infusion to SC collection was 10 days (range 10-16). Number of days required for collection was 1(n=40), 2 (n=14) and 3 (n=2). Three patients received plerixafor prior to day 2 collection. Median days of documented neutropenia was 1 (range 0-6). Only 3 (5.3%) patients were hospitalized for NF requiring intravenous antibiotics. Optimal collection for two transplants (>10x 10e6 CD34/kg) was achieved in 43 (77%) patients.

12 patients (21%) were over age 70 years. In comparison with the younger patient, they were noted to receive lower median dose of C (1988mg/m2 vs. 2714mg/m2, p value

Table 1

C dose (mg/m2)	<2000mg/m^2	2000-3000mg/m^2	>3000mg/m^2	p-value
Median age in years (range)	64.5 (44-79)	62.5 (43-77)	60.5 (48-68)	0.5905
Number of Patients	18	22	16	-
Median C Dose in mg/m2 (range)	1750 (1318-1983)	2584 (2001-2994)	3788 (3033-4018)	0.0001
Median Total CD34/Kg in 10e6 (range)	14.15 (6.89-39.7)	15.72 (2.71- 36.6)	16.10 (5.27 – 113)	0.6717
Days to SC collection (range)	10 (10-14)	10 (10-13)	11 (10-16)	0.0031
Median days of documented neutropenia (range)	1 (0-4)	2 (0-6)	3 (0-6)	0.0003
Number of patients hospitalized for NF	0	1	2	0.2712