(1400 DNA copies/mL), prompting foscarnet initiation. Her MS greatly improved after the first week of antiviral therapy. Serum HHV-6 PCR became negative and a LP on D+53 revealed a normal protein and CSF PCR for HHV-6 had decreased to 110 DNA copies/mL. She was changed to maintenance valganciclovir and TPE was tapered and discontinued after remittance of her TMA and normalization of her MS. Importantly, HHV-6 reactivation must be considered in adult patients undergoing ASCT who develop encephalopathy, fevers of unknown origin, rash, or TMA. An aggressive pursuit of this diagnosis in the appropriate clinical setting is critical given its often fulminant course in immunosuppressed patients who are left untreated.

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AUTOLOGOUS STEM CELL TRANSPLANTATION (ASCT) IN MULTIPLE MYELOMA (MM): ACHIEVEMENT OF CR IS ASSOCIATED WITH IMPROVED SURVIVAL

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Background : HD-CT with ASCT is currently used in the treatment (Tt) of patients (Pts) with advanced MM . Methods : 50 Pts (median age-52 years, range, 26-65) with advanced MM underwent Tt with HD melphalan with ASCT (BM -7, PB -43). M:F : 35:15. All Pts initially had received CT, mean no of CT cycles 9.38 (range, 1- 36). 30/50 (60%) patients had evidence of chemosensitive disease at transplant (Tx). Mean interval from diagnosis to Tx was 17.5 months (range, 3 to 129). Median no of MNC infused was 4. 86 x10(8)/kg (range, 2 - 10.48). Results : Post -Tx, 43 / 50 Pts engrafted; median no of days to engraft (ANC (>500/cmm) was 12 days (range, 9 - 24) & to achieve platelet transfusion independence (>20 K) was 13 days (range, 8 - 36). Grade III-IV oral mucositis was major non-haematologic toxicity. Following Tx, 78% of Pts responded; CR - 29 (58)%, & PR - 20%. CR rate was higher for Pts with chemo-sensitive dis. ; 20/26 Pts with PR at Tx achieved CR vs 5/20 Pts with persistent/refractory dis., p<.01. Post Tx, Pts received interferon-alfa (3 mU 3/wk) for one year. Currently, 34/43 Pts (79%) are alive, 17 (39.5%) disease-free, 9(21%) Pts have died ; 8 of progressive dis. & 1 of unrelated cause. The median FU for the whole group is 26 mon. (range, 1-144 months). Estimated OS & PFS at 55 months is 58% & 34%, respectively. Low Hb (<10g%) (p<.003) & stage B dis. at diagnosis affected the survival adversely. Chemo-sensitive dis.(p<.008) at Tx and achievement of CR post - Tx (<.0001) were associated with significantly improved survival . Conclusions: HD melphalan with ASCT is an effective Tt for advanced myeloma . Achievement of CR is associated with improved survival.

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REQUIRING MORE THAN TWO APHERESIS PROCEDURES IMPACTS ADVERSELY ON OUTCOME OF AUTOLOGOUS PERIPHERAL BLOOD STEM CELL TRANSPLANTATION

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Despite improvements in transplantation co-incident with the switch from marrow to blood, there remain obstacles to success (early relapse, failure to mobilize stem cells). We reviewed our extensive 4 year experience to identify predictive factors for successful engraftment and survival. We wanted to determine if certain difficulties encountered during PBSC acquisition via apheresis had any affect on eventual engraftment after transplantation. We performed 790 apheresis procedures on 274 patients from 1998-2001 (age range 7 months-69 years). The majority of patients were mobilized with chemotherapy and GCSF. However, a small number of patients received a combination of GM-CSF and G-CSF prior to PBSC collection. Of the entire group, 231 patients (85%) eventually underwent transplantation. 7.3% of the patients were not transplanted because of unsuccessful mobilization/stem cell collection. Patients most commonly underwent transplantation as therapy for leukemia, breast cancer, Hodgkins and NonHodgkins Lymphoma and multiple myeloma. Patients who needed to undergo only 1 or 2 apheresis procedures (as compared to those needing 3 or more) had earlier engraftment of WBC and platelet counts and fewer infectious complications. These data suggest that patients who require more than two apheresis procedures prior to autograft should be considered at increased risk for complications during transplantation. Perhaps information regarding this increased risk should be incorporated into patient pre-transplant discussions and consent.

	1 or 2 Aphereses	More than 2 Aphereses	p=
Poor Mobilizer-No Transplant	4.4%	11.3%	0.08
Days to ANC > 500	10.3	11	0.01
Days to Plat > 20,000	14.3	21.7	0.005
Infectious Complications	55%	74%	0.04
Not transplanted	10.4%	20%	0.04

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ENGRAFTMENT SYNDROME IN AUTOLOGOUS TRANSPLANTATION: A FUNCTION OF CD34+ CELL DOSE

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Engraftment syndrome (ES) has been described in the autologous transplant setting. Our aim was to determine factors predictive of ES in a uniform population. We have analysed 101 patients with advanced ovarian cancer receiving high-dose topotecan, melphalan and cyclophosphamide with autologous stem cell transplantation. Engraftment fever (EF) was the only component of ES observed in this group and was defined as onset of fever > 38° C within 3 days pre and 4 days post engraftment. Patients with fever starting prior to that or associated with an infection were considered unevaluable (18 patients). The median age was 50 y (21-67y). The median time to ANC >0.5x10^9 was 9 days (8-11) and to platelets > 100x10^9 was 15 days (10-322). There were no transplant-related deaths. Of the 83 evaluable patients 37 (45%) had engraftment fever (38° - 39° C). These patients had received a significantly higher number of CD34+ cells/kg (median 7.7 vs 10.1) p=0.01. Twenty patients (54%) with engraftment fever had peripheral blood blasts in the engraftment period compared to 13% for patients without fever p<0.001. 54% of patients with engraftment fever received methylprednisolone emperically, mostly 1mg/kg (range 0.5–6.5 mg/kg). Age, prior therapy, and regimen-related toxicity were not associated with a higher incidence of EF. The presence of EF had no impact on survival or progression-free survival. In conclusion, patients receiving >8-10x10^6 CD34+ cells/kg are at increased risk of developing engraftment fever and many will present with circulating blasts on engraftment. Whether steroids are advisable remains to be determined.

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THE EFFECT OF GLUTAMINE ON DISEASE PROGRESSION IN MULTIPLE MYELOMA (MM) PATIENTS RECEIVING HIGH-DOSE MELPHALAN

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Mucositis, a frequent complication of high-dose therapy, is associated with major morbidity and mortality. Glutamine is one agent that has been shown to protect the gastro-intestinal epithelium from the toxic effects of chemotherapy. Although oral glutamine has been used successfully to prevent transplant related mucositis, the potential for glutamine mediated tumor protection has not been systematically investigated. In order to identify any possible tumor protective effect of glutamine in high-dose therapy, we performed a retrospective review of consecutive patients who received high-dose therapy with melphalan (200 mg/m2) for MM either with or without glutamine. Between July 1997 and August 2002, 41 patients were treated at our institution. The first 17 patients did not receive glutamine prophylaxis. In July 2000, we