relapse rate. We aimed to characterize alemtuzumab-based conditioning alloSCT patients in the Instituto Português de Oncologia do Porto (IPOP) and analyze the relation between MDC and alloSCT outcomes.
Material and Methods: Retrospective analysis of consecutive patients admitted in the IPOP for alemtuzumab-based conditioning alloSCT between 1999 and February 2011. Data on donor chimerism were obtained on months 1, 3, 9 and 12. SPSS®18 was used for statistics. Time to event data were analyzed by Kaplan-Meyer method and compared with log-rank test.
Results: We performed 40 transplants in 38 patients (45% male). Median age was 27 years. Diagnoses were acute myeloid leukemia/myelodisplastic syndrome in 47%, lymphoma in 16% and non-malignant diseases in 28%. Status pre-alloSCT was complete remission in 35%, relapse in 13%, untreated in 35% and graft failure of a previous transplant in 15%; 22% had previous alloSTC. The commonest conditioning regimens were fludarabine-based (76%%). Donor was related sibling in 14. HLA was identical in 16. Stem cell source was peripheral blood in 30 and bone marrow in 8. Immunosuppression was based in a calmoudolin inhibitor in 29. Cytomegalovirus reactivation occurred in 50%. Six patients received donor lymphocyte infusion. Median duration of follow-up was 47 months. Median time to neutrophil and platelet engraftment was 14 and 11 days. Almost 50% had MDC at all-time points; 33% and 20% had acute and chronic GvHD. Median overall survival (OS) was 3.7 years. Estimated OS at 1 and 3 years was 58% and 46%. At the last contact, 10 of the 20 alive patients were in complete remission and 16 had died of transplant-related causes, with 100 days and 1 year transplant-related mortality (TRM) of 19% and 41%. Relapse risk in malignant disorders was at 1 and 5 years 26% and 40%. Presence of MDC was associated with lower acute GvHD risk ($p = 0.47$) but found to be not related to risk of relapse, OS and TRM.
Conclusions: Alemtuzumab-based conditioning regimen wasn't related to relapse risk or OS, so it can be used in selected high risk patients. Our series differs from others in the greater diversity of diseases and conditioning regimens and higher percentage of unrelated donor transplant, non-identical HLA match and previous alloSTC. These characteristics, in association with our limited sample size, can justify the differences in results, particularly the higher TRM.

9227 POSTER

Simulation of Clinical Endpoints (Survival, PFS) in Patients With Refractory Multiple Myeloma Treated With Pomalidomide Based on Interim Week 8 M-protein Response

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Background: The aims of this project were 1) to develop a drug-independent link between tumour burden reduction (as assessed by change from baseline in serum M-Protein) and survival and PFS in multiple myeloma and 2) to simulate expected survival and PFS based on interim M-protein data of an ongoing phase 1/2 trial (CC-4047-MM02, NCT00833833) of pomalidomide (POM) in patients with relapsed and refractory multiple myeloma who have received at least 2 prior therapies including lenalidomide (LEN) and bortezomib. Similar approaches were implemented for solid tumours (Claret, J Clin Oncol 2009; Wang, Clin Pharmacol Ther 2009).
Methods: M-Protein measurements were modeled as a function of time from 704 patients included in two phase 3 clinical studies of LEN plus dexamethasone (DEX) vs. DEX (Dimopoulos, NEJM 2007 and Weber, NEJM 2007). Models for survival and PFS times as a function of model predicted change in end-of-cycle 2 (week 8) M-protein level from baseline and other prognostic factors were developed. Interim M-protein data from the ongoing MM-002 POM study (217 patients) were modeled to simulate clinical endpoints.
Results: Week 8 change in M-Protein ($p < 0.00001$), ECOG performance status ($p < 0.0009$), baseline albumin, hemoglobin and creatinine levels ($p < 0.01$) were significant independent predictors of survival when week 8 change in M-Protein ($p < 0.00001$) and baseline hemoglobin ($p < 0.001$) were significant independent predictors of PFS. Observed survival and PFS distributions over 100 weeks in lenalidomide studies and difference between the two treatments (LEN + DEX vs. DEX) were consistent with the 95% prediction intervals (PI) of the models. Model predictions (95%PIs) of median survival based on week 8 change in M-Protein following treatment with POM and POM + DEX were 78.3 weeks (53.5–116.1 weeks) and 67.8 weeks (45.8–101.3 weeks), respectively when model predicted PFS was 22.5 weeks (14.6–34.3 weeks) vs. 16.5 weeks (9.7–27.7 weeks), respectively.
Conclusions: Modeling and simulation enables the use of the change in M-protein level as a continuous longitudinal biomarker to assess drug effect in multiple myeloma studies. Current simulations indicate encouraging results for POM in a refractory multiple myeloma patient population.

9228 POSTER

Chemotherapy With Artificial Hyperglycemia in Treatment of Recurrent or Refractory Follicular Non-Hodgkin's Lymphomas

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Background: We conducted trial to evaluate the therapeutic efficacy and toxicity of CHOEP regimen under artificial hyperglycemia in patients with relapse or refractory follicular non-Hodgkin's lymphomas. It is stated that under hyperglycemia antitumour effect of chemotherapeutic agents is considerably increased.
Methods: Eligible for this study was 163 patients with recurrent or refractory follicular non-Hodgkin's lymphomas from 2002 to 2007 in our institute. Patients received under hyperglycemia regimen CHOEP. Hyperglycemia is carried out by introduction of 20% solution of glucose in quantity 1200vl. Chemotherapeutic agents dissolved and entered into each bottle of glucose (400 ml); infusion of glucose is spent at the rate of 140–170 drops to a minute. Insulin not entered into glucose solution.
Results: There were 40 CR and 64 PR, for an overall response rate 63.3%. The median time to attainment of CR was after four courses (range, one to six); all CR patients had achieved at last a PR after four courses (median, two). For those whose maximum response was a PR, the median time to PR were two courses (range, one to five). The median duration of CR was 21 months (range, 4 to 25+). The median duration of PR was 9 month (range, 4 to 25+). Among PR patients, 26 developed progressive disease early (within 9 months), 6 within 1 month of discontinuation of CHOEP under hyperglycemia, 13 while on chemotherapy under hyperglycemia, and 7 after early discontinuation of four courses. 23 of these 26 patients with early progression after CHOEP did subsequently stabilize. Three died of progressive lymphoma within 6 months. Only 19 patients did not achieve at least a PR. With a median follow-up duration of 20months, the median survival and failure-free survival times from the time of entry onto the CHOEP+ hyperglycemia study were 34 and 14 months, respectively.
Conclusions: The CHOEP regimen under artificial hyperglycemia achieved a high rate of response in this group of patients with recurrent or relapsed follicular non-Hodgkin's lymphomas. 33% of this 160 patients responded to the CHOEP regimen under artificial hyperglycemia, and there was a CR rate of 25%. Several of the CRs have been durable, lasting up to 2 years. The CHOEP regimen under artificial hyperglycemia was well tolerated.

9229 POSTER

Severe Central Nervous System (CNS) Graft Versus Host Disease (GVHD) in a Patient Without Any Other GvHD Symptoms After Allogeneic Stem Cell Transplantation

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Background: Although graft versus horst disease (GvHD) is the most relevant complication of allogeneic stem cell transplantation (SCT), it rarely affects the central nervous system. Recently, a consensus conference proposed criteria of diagnosis for cerebral GvHD including the obligatory manifestation of chronic GvHD at other organs [Grauer et al., Brain, 133: 2852, 2010]. We observed a 41 y old women, who developed spastic paralysis and fell into coma 2.5 years after having an allogeneic peripheral blood stem cell stem cell transplantation (PBSCT) for acute myeloblastic leukemia from an unrelated HLA 9/10-matched donor. The patient presented with a history of several month of headache supposed to be caused by migraine. She had a history of acute GvHD stage III (skin and intestinal) but no signs of chronic GvHD. In addition she had no history of an independent autoimmunopathy or migraine prior to SCT.
Material and Methods: MRI scan was performed, cerebrospinal fluid was analyzed to exclude CNS relapse and infectious agents, and finally CNS biopsy was obtained by open brain surgery.
Results: MRI scan showed disseminated severe leucencephalopathy without established sign of CNS relapse, lymphoma or typical infection. The cerebrospinal fluid analysis was normal. Toxoplasmosis and viral infection