reached), and corresponding figures for those with 1–2 previous regimes were 50% and 3 yrs, and ≥3 previous regimes 13% and 0.8 yrs.

Responding patients may achieve a prolonged remission and survival, but response is less likely in heavily pretreated patients.

396 ORAL

The role of lung function measurements before allogenic BMT to anticipate long term lung failure

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Background: Lung function often deteriorates after allogenic BMT for hematological malignancies, and lung failure is the most important cause of death after grafting. To test whether pre-BMT lung function impairment is associated with long term lung deterioration, we prospectively measured lung function parameter of 80 consecutive patients with AML (n = 23), CML (n = 38) and ALL (n = 19) before allogenic BMT, after 6 months, and thereafter annually until 5 years after grafting.

Results: Pretransplant forced expiratory volume in one second (FEV1), diffusing capacity for carbon monoxide (TLco) and vital capacity (VC) were significantly decreased in the ALL subgroup (FEV1 85% pred, TLco 79% pred, VC 83% pred, ECCS normal values). In contrast, no pre-BMT lung impairment was detectable in CML and AML patients. During the first 6 months after BMT lung function parameter decreases in all patient groups in a similar way (FEV1 15 ± 7.3%, TLco 23 ± 11.2%, VC 19 ± 9.8%). Further, all lung parameter at least partially recovered within one year. Long-term decline in FEV1, TLco and VC happened in all patients groups without significant differences. No association was detectable between pre-BMT, 6 months after BMT and long term lung function decrease.

Conclusion: Pretransplant lung function impairment is not associated with increased relative risk for long term lung failure in allogenic BMT patients.

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Platelet recovery after high-dose (HD) chemotherapy (C) is superior with peripheral blood stem cells (PBSC) mobilized by C + G-CSF compared to G-CSF alone

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Collection of PBSC mobilized with G-CSF is often more predictable and easier to perform than mobilization using C. We evaluated two mobilization strategies to support women receiving cyclophosphamide 6 g/m^2, mitoxantrone 64 mg/m^2, carboplatin 0.8–2.0 g/m^2 over 4 days (d) for C-sensitive metastatic breast cancer. 35 consecutive pts received FAC (cyclo 2 g/m^2) d1 + G-CSF 10 μg/kg d4–14, with leukapheresis (10–12 L) × 4 d12–15 (C + G, n = 16); or G-CSF 10 μg/kg d1–7 with leukapheresis d5.6 ± 7.8, depending on CD34 recovery (target > 2 × 10^6/kg) (G, n = 19). Number of collections/pt: C + G 3:2pts, 4:12, 5:2; G 2:5 pts, 3:5, 4:8, 5:1. CD34+ cell recovery (× 10^6/kg) was greater for C + G: median 12.9 vs 3.5 (p = 0.009), whereas CFU-GM, total cell number were similar. Mean D to ANC > 0.5 × 10^9/L were similar (C + G: 10.9, G: 12.4, p = 0.15), but mean d to plts > 20 × 10^9/L was less for pts collected after C + G (12.8 vs 24.4, p = 0.03). Plt recovery and time to hospital discharge (DC) were significantly shorter for C + G pts (logrank p = 0.02 and 0.001 respectively), with similar ANC recovery (p = 0.14). Prior adjuvant C did not affect apheresis yield, engraftment or time to DC. For women receiving HDC for MBC, PBSC mobilized with C + G may be superior to G alone, at least with respect to plt recovery.

398 ORAL

Treatment of patients with relapsed or refractory acute myeloid leukemia (AML) with recombinant engineered human anti-CD33 antibody-calicheamicin drug conjugate

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CMA-676 is a conjugate of the potent cytotoxic agent calicheamicin linked to a recombinant engineered human antibody directed against the CD33 antigen, which is commonly expressed on AML blast cells. The lack of CD33 antigen expression on hematopoietic stem cells allows for selective delivery of the cytotoxic calicheamicin to the tumor target, while sparing normal stem cells. Patients with CD33-positive relapsed or refractory AML received CMA-676 as a single 2-hour IV infusion per treatment cycle every 14 days for up to 3 cycles at the same dose, contingent upon a lack of leukemic progression and significant toxicity. Three to 6 patients were treated at escalating dose levels of CMA-676. Between April 1995 and December 1996, 36 patients from 23 to 73 years of age, were entered. CMA-676 was well-tolerated at all dose levels. Fever and chills occurred in 26 (74%) patients. Three patients experienced Grade III hepatic toxicity. Dose-limiting toxicity was not observed, and only one patient discontinued the study due to fever and hypotension. Marrow morphologic remissions were achieved in 5 patients, two of whom recovered normal blood counts for 6 months before experiencing relapse. Three other patients achieved morphologic remission; however one died of fungal sepsis, one remained transfusion dependent in morphologic remission for 70 days when bone marrow relapse occurred, and one experienced CNS relapse after a morphologic remission of 40 days. We conclude that single-agent therapy with CMA-676 safely induces remission in some patients with relapsed or refractory AML.

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Transplant-related morbidity (TRM) in patients undergoing bone marrow transplantation (BMT): The role of preparative regimens (PR)

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Purpose: This retrospective analysis evaluated acute and late toxicities after BMT according to PR.

Methods and Materials: From January 1984 to December 1994, 229 patients with acute leukemia (AL, n = 114), chronic myelogenous leukemia (CML, n = 53), lymphoma (51) and aplastic anemia (11) were transplanted (171 allogeneic BMT, 58 autologous BMT). Preparative regimens were combining cytotoxic drugs (cyclophosphamide) with TBI (TBI group, n = 146) or without TBI (cyclophospamide, busulfan) (CHE group, n = 83). Median age was 32.4 years. Median follow-up was 36 months (0.3–121).

Results: There was no difference in term of white blood cell count recovery, engraftment, veno-occlusive disease and hemorrhagic cystitis between the 2 groups. The CHE group presented an increased incidence of second malignancies. The TBI group showed an higher incidence of platelets and red blood cell transfusion, cataracts (especially with cobalt irradiation), aseptic necrosis of bone and interstitial pneumonitis (IP). IP occurred in 25% of TBI group, especially in patients with graft-vs-host disease. Survival according to the type of preparative regimens was similar (Cox model). According to the BMT type, survival was better with allogeneic BMT even if TRM was higher in this group (especially with TBI, 73% vs 12%).

Conclusion: Although patients treated with TBI experienced more late toxicity, survival remains the same. This could be explained by the higher rate of relapses in the CHE group. Therefore TBI keeps its place as first intent treatment choice.

400 POSTER

Development of a "myeloma risk score" for patients with a paraproteinaemia

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Purpose: Diagnostic systems for monoclonal gammopathies use bone marrow and X-ray examinations to exclude multiple myeloma (MM). Data from a population-based registry of unselected patients with paraproteinaemia indicate that these tests are frequently not performed. We therefore evaluated the possibility of estimating the risk for MM in patients with paraproteinaemia using only standard laboratory tests.

Methods: We used 441 randomly selected patients to develop a simple four point "Myeloma Risk Score" based only on paraprotein type and concentration. One point was given for concentrations ≥10 g/l, one point for IgG and IgA, and two points for IgD and light chains only. A score of 0 or 1 indicated a low risk for MM, with scores of 2 and 3 signifying high risks.

Results: Sensitivity, specificity, positive and negative predictive value (PV) for the Myeloma Risk Score in the training sample were 92%, 88%,