ALL with leukocytes >30/μl at diagnosis and/or delayed CR (>4 weeks), pro B-ALL or complex karyotype, T lineage ALL (prae T-ALL, mature T-ALL) and standard risk ALL (SR-ALL) with molecular persistence or relapse are candidates for SCT in CR1. Pts with siblings have a 25% probability (prob) of an HLA identical sibling. Pts without an HLA identical sibling have a chance of 80% to find a compatible unrelated donor.

Here, we report our single centre data on SCT from sibling and unrelated donors. High resolution HLA typing class I-II was done since 01/2006. Between 2006 and 2010, 36 pts with ALL, CR1 underwented SCT. 12 pts had a sibling donor, 14 pts an HLA identical unrelated donor (MUD) and 10 pts an HLA compatible unrelated donor (MMUD). All HLA mismatches were in class I, 9/10 pairs had 1 mismatch (HLA-C antigen 4, HLA-A antigen 3, HLA-B allele 2) and 1/10 pairs had 2 mismatches (HLA-C antigen and HLA-B allele). Median age was 43 (18-67) years, not different between sibling or unrelated SCT. Indication for SCT: 14/36 pts belonged to the VHR group, 19/36 pts to the HR group and 3/36 pts of the SR group had molecular relapse. All pts were transplanted in CR1 (bone marrow <5% blasts). Conditioning was myeloablative (MAC) in 30/36 pts (12 Gy TBI and VP 16 or CY 29, other 1) and in 6/36 pts reduced intensity (RIC). Pts with unrelated donors received antithymocyte globuline (ATG) (60mg/kg in MAC, 40mg/kg in RIC).

Results: 25/36 pts are alive in CR (median f/u 40 months, 7-66), 11/36 pts died 8 months (0.5-24) after SCT. Causes of death: leukemia 3, infection 2, GVHD 2, other 2. Prob of OS for all pts (36) at 4 yrs is 0.65, 0.82 for SCT with sibling donors, 0.52 for MUD-SCT, 0.56 for MMUD-SCT. The differences were not significant. Prob of LFS is 0.59 for all pts, in pts with sibling donors 0.82, after MUD-SCT 0.49 and 0.44 after MMUD-SCT. Prob of NRM for all pts was 0.26, in sibling SCT 0.18, in MUD-SCT 0.34 and in MMUD-SCT 0.26.

Conclusion: In ALL, CR1 SCT after MAC and with a sibling donor is still the gold standard (OS 0.82). In unrelated donor SCT we found no difference in survival between HLA identical or 1 antigen mismatched donor-recipient pairs. It has to be discussed if dose reduction of ATG in MUD-SCT might improve the results by decreasing NRM and relapse post SCT.

400 NONABLATIVE CONDITIONING REGIMEN FOR CD20+ B-CELL LYMPHOMA MALIGNANCIES: SHOULD CONDITIONING REGIMENS BE INDIVIDUALIZED TO OPTIMIZE TRANSPLANT OUTCOME?

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Background: Allogeneic stem cell transplantation (allo-SCT) is limited by transplant-related-mortality (TRM), primarily mediated by graft-versus-host disease (GVHD). Disease specific preparative regimens that offer acceptable graft-versus-host disease (GVHD)-associated morbidity and TRM are preferred. The B-cell lymphoma specific nonablative (NST) regimen fludarabine, cyclophosphamide and rituximab (FCR) is reportedly safe and effective, however most reported data are from single institution.

Methods: Twenty six pts with recurrent CD20+ B-cell lymphoid malignancies received FCR NST allo-SCT between March 2008 and May 2011. The conditioning regimen consisted of fludarabine (30 mg/m2 daily for 4 days), cyclophosphamide (750 mg/m2 daily for 3 days) and rituximab (375 mg/m2, day-13,-6,+1,+8). This was followed by either related (n = 18) or unrelated donors (n = 8) allo-SCT. All patients received tacrolimus and mini-methotrexate GVHD prophylaxis (αTg for unrelated donor allo-SCT).

Results: The median age of pts at transplantation was 59 years (range 41-64). Ten pts had CLL, 7 MCL, 3 DLBCL, 3 FL and 3 transformed-lymphoma. At diagnosis, 20 (77%) pts had stage IV disease. Twenty three pts (88%) received ≥3, 14 (54%) ≥4 regimens and 4 (15%) had prior autologous-SCT. Nine (35%) pts were in complete remission pre-SCT following salvage therapy. At the time of analysis, 17 pts were alive with an estimated 2-year OS and PFS of 63%, and non-relapse mortality (NRM) 25%. Grade II-IV aGVHD occurred in 8 (31%) pts and chronic GVHD in 6 (24%) pts (extensive = 3). Causes of death includes progressive disease 4, aGVHD 2 (both after receiving DLI for mixed chimerism with residual disease), infection 1 and others 2 (substance abuse, leukoencephalopathy). Only 6 pts required re-hospitalization within 100 days of SCT, (average 10 days; range, 3-18).

Conclusion: Our data suggests nonablative FCR conditioning regimens are safe and effective in heavily pre-treated B-cell lymphoid malignancies. While our conclusion is limited by the small sample size, this suggests the need for larger prospective studies to validate the efficacy of FCR and to compare it with other reduced-intensity conditioning allo-SCT in B-cell malignancies. We recommend that FCR allo-SCT be considered early and novel strategies (radioimmunotherapy, tandem autologous SCT) be incorporated and evaluated to major cause of failure, particularly in heavily pre-treated pts.

401 EBV-POSITIVE LYMPHOPLASMACYTIC LYMPHOMA: A HIGHLY AGGRESSIVE POST TRANSPLANT LYMOPHOPROLIFERATIVE DISORDER WITH MULTIORGAN INVOLVEMENT

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Post transplant lymphoproliferative disorder (PTLD) is a heterogeneous disease ranging from benign polyclonal proliferation of B cells to monoclonal B cell proliferation. Its cumulative incidence is about 1% with most cases observed during the first year. Most cases are associated with Epstein-Barr virus (EBV) infection. Indolent lymphomas are not considered part of PTLD in the WHO 2008 classification.

Here we describe two cases of EBV related post transplant lymphoplasmacytic lymphoma (LPL) with multiorgan failure and aggressive course. The first patient was an EBV positive 28-year old male with refractory Hodgkin's lymphoma following autologous transplant. The second was an EBV negative 57-year old male with relapsed peripheral T-cell lymphoma, otherwise non-specified. They underwent matched unrelated allogeneic transplant after being conditioned with fludarabine, busulfan and ATG. They received methotrexate and cyclosporine for GVHD prophylaxis. On Day +20 post transplant, the first patient presented with fever, nausea, diarrhea, and bilateral cervical lymphadenopathy. He had pancopte- nia, elevated liver enzymes and acute renal failure. Bone marrow aspirate and biopsy findings were consistent with monomorphic LPL with normal cytogenetics. Biopsies of a cervical lymph node, duodenum and a colonic mass revealed the same histology. Serum protein immunofixation (SPIF) showed bicalonal IgG kappa and lambda, IgA kappa and bicalonal IgM lambda gammopathy. EBV PCR was 0.597x106 copies/ml. He was treated with immunosuppression tapering, cyclophosphamide and rituximab with no evidence of improvement. The second patient presented with fever on day +15 post transplant. He had cervical, retroperitoneal and inguinal lymphadenopathy, splenomegaly, as well as pancoptenia, elevated liver enzymes and acute renal failure. Bone marrow aspirate and biopsy revealed a monomorphic LPL. SPIF showed bicalonal IgG kappa para-protein with lambda chains. EBV PCR was 1.38x105 copies/ml. He was treated with immunosuppression tapering and rituximab but his condition deteriorated rapidly. We described two cases of EBV driven post transplant LPL with profound protein abnormalities and multiorgan failure despite indolent morphology. Although indolent lymphomas are not considered part of PTLD, clinicians must be aware of this presentation. Severity of cases and lack of response to treatment should further bring into discussion the role of EBV load regular monitoring in patients at risk.

402 SENSITIVE REAL-TIME PCR CHIMERISM ASSAY FOR HSCT MONITORING

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Chimerism testing, or the measurement of the percent of recipient and donor hematopoietic cell origin, is a standard of care for HSCT recipients. For leukemic recipients, the quantification of chimerism