Oral Session (Oral presentations categorized by each organ)

**01-1-2 INTENSIFIED CONDITIONING REGIMEN FOLLOWED BY ALLOGENEIC HCT FOR Ph + ALL IN FIRST CR**

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**Background:** The use of imatinib in combination with chemotherapy has increased a complete remission (CR) rate and allows to receive allogeneic hematopoietic cell transplantation (HCT) for the patients with Philadelphia chromosome positive acute lymphoblastic leukemia (Ph + ALL). HCT is the standard of care for the eligible patients with Ph + ALL in first CR. We hypothesized that an intensified pre-transplant conditioning regimen might improve the outcome. The aim of this study was to assess the efficacy and safety of intensified conditioning regimen for the Ph + ALL patients who received imatinib-containing chemotherapy before HCT.

**Methods:** We retrospectively analyzed the data of 12 patients with Ph + ALL in the first CR who underwent HCT in our hospital between 2003 and 2012. An intensified conditioning regimen consisted of total body irradiation (TBI) 10 Gy administered in 5 fractions, ETP 60mg/kg, and CY 120mg/kg.

**Results:** The median time from achievement of CR to HCT was 4.1 months (range, 1.4-7.4 months). The median age at the time of HCT was 40 years (range, 30-52 years). Donors were related bone marrow or peripheral blood (n = 4), unrelated bone marrow (n = 5) or umbilical cord blood (n = 3). With a median follow-up of 4.3 years (range, 1.1-10.1 years), the probability of overall survival, relapse, and non-relapse mortality at 4 years were 91%, 18%, and 0%, respectively. All of the 7 patients who achieved molecular remission at the time of HCT remained alive in CR, whereas 2 of 5 patients who did not achieve molecular remission had relapse after HCT.

**Conclusions:** Our results suggest that TBI and CY plus ETP might be a feasible and effective conditioning regimen for the Ph + ALL patients in the imatinib era, especially if the patients obtained molecular remission before HCT.