

S-6-1

## **Hematopoietic stem cell transplantation in childhood acute lymphoblastic leukemia in Japan. From the Registry of Japanese Society of Pediatric Hematology**

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Since 1977, the Hematopoietic stem cell transplantation (HSCT) registry of Japanese Society of Pediatric Hematology (JSPH) has been covering close to 100% of HSCTs in children in Japan. The number of the registered patients has rapidly increased from 1990, particularly from 1993 when Japan Marrow Donor Program started the coordination. Since 1997, local cord blood banks initiated to provide the frozen stem cell.

As of 2002, registered were 2085 transplants of acute non-myeloid leukemia; composed of 2005 acute lymphoblastic leukemia (ALL) and 80 others (38 acute mixed lineage leukemia: AMLL, 21 acute undifferentiated leukemia: AUL and 21 NK cell leukemia).

There were 140 infant leukemia (MLL positive in 120), 277 Ph1 positive leukemia, 38 B or L3 ALL, 132 T-ALL as the specified diagnoses among the 2005 ALL.

Six hundred and seventy six patients were transplanted at 1<sup>st</sup> CR, 676 at 2<sup>nd</sup> CR, and 697 at refractory or advanced stages.

The 530 patients were transplanted with autologous stem cell, 25 syngeneic donors, 796 sibling donors (736 HLA matched), 184 parents (43 matched), 10 other relatives, 364 unrelated marrow and 174 unrelated cord blood (related cord in 12).

Only once the transplant was done in 1856 patients, twice in 206 and 3 times in 21. Among the 1413 ALL patients, 443 underwent 1<sup>st</sup> SCT at 1st CR, and their actual survival rate was 63%, and that of the 499 patients underwent at 2<sup>nd</sup> CR was 53%, and 471 at refractory or advanced stage 21%.

The patients with Ph1 ALL showed 46%, 53%, and 12% survival rates transplanted at 1<sup>st</sup>, 2<sup>nd</sup> and advanced stage, and MLL positive infants, 62%, 44%, 24% respectively, while non-infant MLL positive cases resulted in 88% at 1st CR, and 60% at 2<sup>nd</sup> CR.

Results of further analyses will be presented from the standpoint of various stem cell sources, prognostic factors, and recent progress of the results.