

Treatment Outcome of Pediatric Stem Cell Transplantation: King Chulalongkorn Memorial Hospital Experience

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Objective: Stem cell transplantation (SCT) is done worldwide as a curative therapy for various hematologic and non-hematologic diseases. Since our pediatric SCT program was established in mid-1999, we have performed in a number of patients and evaluated for treatment outcome.

Methods: A case-series study of the patients undergoing standard SCT between July 1999 and April 2001 at Sor Gor 16 stem cell transplant unit was performed.

Results: There were 13 pediatric patients (11 male, 2 female) undergoing SCT. The age ranged from 10 months to 18 years (median 8 years). Of these 13 patients, 5 underwent allogeneic matched sibling bone marrow transplantation (BMT), 1 underwent allogeneic maternal haplo-identical BMT, 1 underwent autologous BMT, 4 underwent allogeneic matched sibling peripheral blood stem cell transplantation (PBSCT), and 2 underwent autologous PBSCT. The patients' diagnoses were 3 beta-thalassemia/hemoglobin E, 2 severe aplastic anemia, 2 NHL, 2 CML, 1 ANLL, 1 recurrent Wilms tumor, 1 PNET, and 1 SCID. Disease-free survival rate of all patients was 84.62 % (11 out of 13). The follow-up time ranged from 1 year 9 months in the first to 1 week in the latest case. Non-transplant-related mortality rate was 15.38 % due to 2-patient death. One died from relapsed PNET at 3 months post-transplant. Another who was SCID case with severe pulmonary infection prior to transplant died early post-transplant because of respiratory failure.

Conclusions: The overall outcome is good and comparable to other institutes' study. Further follow-up is warranted to ensure complete cure of diseases and detect any possible long-term complications.