

Clinical Results of Allogeneic Hemopoietic Stem Cell Transplantation for Hematological Disorders

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Abstract : A total of 24 patients aged from 21 to 62 years (median 37 years) underwent allogeneic hemopoietic stem cell transplantation (HST) at Fukuoka University Hospital between May 1999 and December 2003. The indications for HST were : 11 myeloid malignancies (acute myeloid leukemia (n=9), chronic myeloid leukemia (n=1), myelodysplastic syndrome (n=1)), 12 lymphoid malignancies (acute lymphoblastic leukemia (n=5), malignant lymphoma (n=6), adult T cell leukemia (n=1)), and 1 non-malignant disease (severe aplastic anemia). The cell sources used for transplantation were either bone marrow cells from siblings in 11, peripheral blood stem cells from siblings in 12, or unrelated cord blood cells in 1. In 11 patients with myeloid malignancies, 8 are alive in remission for from 5 to 55 months (median 17 months) after HST. Only one patient had a relapse. The oldest patient, a 62-year-old man, received HST when he developed a second relapse for acute myeloid leukemia, and has since enjoyed a complete remission for 26 months. In contrast, 4 of 12 patients with lymphoid malignancies have survived in remission for from 11 to 48 months (median 26 months), while 6 subsequently relapsed after HST. One patient with severe aplastic anemia is still alive in a good condition at 16 months after the HST. Up to now, 10 patients have died after HST. The causes of death were disease progression in 6 patients, fungal pneumonia in 3, and bacterial sepsis in 1. Following HST, 13 of 24 patients, whose diseases were fatal and difficult to cure by chemotherapy, have survived and are in remission for from 5 to 55 months (median 16 months), thus indicating that HST is an effective treatment. Especially in myeloid malignancies, prolonged survival should be expected after undergoing HST. To improve the disease-free survival, a new strategy to decrease the incidence of recurrence in lymphoid malignancies and to prevent fatal fungal infections should be established in the future.

Key words : Allogeneic hemopoietic stem cell transplantation, Myeloid malignancies, Lymphoid malignancies, Non-malignant hematological diseases