

Supplementary Table 1 Associated diseases in pediatric patients with bone marrow transplantation

Associated disease ¹	Total, <i>n</i> = 29/62 (46.8)
Arthritis	4 (13.8)
Bronchial asthma	4 (13.8)
G6PD deficiency	3 (10.3)
Hearing loss	3 (10.3)
Sickle cell trait	2 (6.9)
Sickle cell anemia	2 (6.9)
Speech disturbances	2 (6.9)
Beckwith-Wiedeman syndrome	1 (3.4)
Essential primary hypertension	1 (3.4)
Epilepsy	1 (3.4)
Psoriasis	1 (3.4)
Alopecia areata	1 (3.4)
Inguinal hernia	1 (3.4)
Umbilical hernia	1 (3.4)
Primary carnitine deficiency	1 (3.4)
Alpha thalassemia	1 (3.4)
Asplenia	1 (3.4)
Moyamoya disease	1 (3.4)
Dilated aortic root	1 (3.4)
Patent ductus arteriosus	1 (3.4)
Patent superior vena cava	1 (3.4)
Autoimmune hepatitis	1 (3.4)
Horseshoe kidney	1 (3.4)
Autism	1 (3.4)
Cryptorchidism	1 (3.4)
Hypothyroidism	1 (3.4)

¹Some patients had more than one associated disease. Data are presented as numbers and percentages. G6PD: Glucose-6-phosphate dehydrogenase.

Supplementary Table 2 Conditioning regimen of pediatric patients who underwent bone marrow transplantation

Conditioning regimen ¹	Total BMT, <i>n</i> = 60/68 (88.2)	Allogeneic, <i>n</i> = 44/68 (64.7)	Autologous, <i>n</i> = 16/68 (23.5)	<i>P</i> value ^a
Chemotherapy-based regimen	38 (63.3)	22 (50.0)	16 (100.0)	<0.001
Chemotherapy alone	26 (43.3)	10 (22.7)	16 (100.0)	<0.001
Bu + Mel	4 (6.7)	0 (0.0)	4 (25.0)	0.004
Bu + Cy	3 (5.0)	3 (6.8)	0 (0.0)	0.558
Mel + Etop + CB	3 (5.0)	0 (0.0)	3 (18.8)	0.016
Bu + Flu	3 (5.0)	3 (6.8)	0 (0.0)	0.558
Bu + Flu + TT	2 (3.3)	2 (4.5)	0 (0.0)	1.000
Others ²	11 (18.3)	2 (4.5)	9 (56.3)	<0.001
Chemotherapy + immunotherapy	12 (20.0)	12 (27.3)	0 (0.0)	0.025
Flu + TT + Mel + ATG	3 (5.0)	3 (6.8)	0 (0.0)	0.558
Bu + Cy + ATG	3 (5.0)	3 (6.8)	0 (0.0)	0.558
Flu + Cy + ATG	2 (3.3)	2 (4.5)	0 (0.0)	1.000
Others ³	4 (6.7)	4 (9.1)	0 (0.0)	0.565
Radiotherapy-based regimen	22 (36.7)	22 (50.0)	0 (0.0)	<0.001
Chemotherapy + immunotherapy + radiotherapy	7 (11.7)	7 (15.9)	0 (0.0)	0.173
Flu + Cy + ATG + TBI	4 (6.7)	4 (9.1)	0 (0.0)	0.565
Flu + Cy + TT + ATG + TBI	2 (3.3)	2 (4.5)	0 (0.0)	1.000
Flu + Cy + TBI	1 (1.7)	1 (2.3)	0 (0.0)	1.000
Chemotherapy + radiotherapy	15 (25.0)	15 (34.1)	0 (0.0)	0.006
Flu + TBI	7 (11.7)	7 (15.9)	0 (0.0)	0.173
Cy + TBI	5 (8.3)	5 (11.4)	0 (0.0)	0.311
Flu + Cy + TBI	2 (3.3)	2 (4.5)	0 (0.0)	1.000
Etop + TBI	1 (1.7)	1 (2.3)	0 (0.0)	1.000

^aFisher's exact test. ¹One patient did not receive a conditioning regimen before the first and second BMTs.

Data regarding conditioning regimen before the first BMT was missing in seven patients. Data are presented as numbers and percentages. Boldface indicates a statistically significant difference with *P* < 0.05.

²Allogeneic BMT: Flu + Bu + Cy, Flu + TT + Treo (*n*=1, each). Autologous BMT: Cy + TT, Bu + Etop + Mel + Ifos + CB, Etop + CB, Etop + CB + Ifos, Etop + TT + Mel, Etop + BCNU, Etop + Mel + BCNU + Cyta, Cy + CB + Etop + Mel, Cy + Etop + Mel + TT (*n*=1, each).

³Allogeneic BMT: Flu + Bu + ATG, Flu + Bu + TT + ATG, Cy + ATG, Flu + TT + Treo + Alemt (*n*=1, each).

BMT: Bone marrow transplantation; Bu: Busulfan; Mel: Melphalan; Cy: Cyclophosphamide; Etop: Etoposide; CB: Carboplatin; Flu: Fludarabine; TT: Thiotepa; ATG: Antithymocyte globulin; TBI: Total body irradiation; Treo: Treosulfan; Ifos: Ifosfamide; BCNU: Carmustine; Cyta: Cytarabine; Alemt: Alemtuzumab.

Supplementary Table 3 Other infectious complications after first and second bone marrow transplantation

Complications ¹	Total BMTs, n = 64/68 (94.1)	Allogeneic, n = 51/52 (79.7)	Autologous, n = 13/15 (86.7)	P value ^a
Infectious				
Pseudomonas aeruginosa	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Escherichia coli	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Varicella zoster virus	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Staphylococcus epidermidis	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Lymphadenitis	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Periapical abscess	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Respiratory syncytial virus	2 (3.1)	1 (2.0)	1 (7.7)	0.400
Ochrobactrum anthropi	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Brucellae	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Klebsiella pneumoniae	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Streptococcus viridans	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Coagulase-negative staphylococcus	1 (1.6)	1 (2.0)	0 (0.0)	1.000
PIKA virus	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Herpetic conjunctivitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Candidiasis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Scabies	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Intestinal helminthiasis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Lower respiratory tract infection	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Bronchitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Unspecified pulmonary infection	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Pulpitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Herpetic gingivostomatitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Stomatitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Pericoronitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Chronic apical periodontitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Retinitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Cutaneous abscess	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Anal abscess	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Acute hematogenous osteomyelitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Enterovirus	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Unspecified fungal infection	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Bronchiolitis obliterans	1 (1.6)	0 (0.0)	1 (7.7)	0.224

^aFisher's exact test.

¹Some patients developed more than one complication. Data are presented as numbers and percentages.

BMTs: Bone marrow transplantations

Supplementary Table 4 Other non-infectious complications after first and second bone marrow transplantation

Complications ¹	Total BMTs, <i>n</i> = 64/68 (94.1)	Allogeneic, <i>n</i> = 51/52 (79.7)	Autologous, <i>n</i> = 13/15 (86.7)	<i>P</i> value ^a
Gastroesophageal reflux disease	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Chronic kidney disease	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Deciduous teeth	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Epistaxis	2 (3.1)	2 (3.9)	0 (0.0)	1.000
Engraftment reaction	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Immunodeficiency	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Pancytopenia	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Dermatitis (diaper, perioral, seborrheic, atopic, and unspecified)	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Anagen effluvium	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Discoid lupus erythematosus	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Follicular disorder	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Ulcerative colitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Anal fissure	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Pancreatitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Diabetes mellitus type 1	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Endocrine failure	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Aphthous ulcer	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Disorders of tooth development	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Deposits on teeth	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Pulp necrosis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Malocclusion of teeth	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Idiopathic pneumonia syndrome	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Bladder disorder	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Nephritis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Non-organic enuresis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Ear pinna helix fibrosis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Impacted cerumen	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Testicular mass	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Hypotension	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Left and right ventricular dilatation	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Posterior reversible encephalopathy syndrome	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Arteriovenous malformation of cerebral vessels	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Tension-type headache	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Neuropathy	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Myositis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Myalgia	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Unspecified acquired limb deformity	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Pneumatosis intestinalis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Episcleritis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Blepharitis	1 (1.6)	1 (2.0)	0 (0.0)	1.000
Soft tissue disorder	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Contact dermatitis	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Ganglion cyst	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Adrenal gland disorders	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Hypogonadotropic hypogonadism	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Chronic lung disease	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Secondary pulmonary hypertension	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Respiratory failure	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Autoimmune hepatitis	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Ptosis	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Otalgia	1 (1.6)	0 (0.0)	1 (7.7)	0.224
Drug eruption rash	1 (1.6)	0 (0.0)	1 (7.7)	0.224

Drug induced accommodation disorder	1 (1.6)	0 (0.0)	1 (7.7)	0.224
-------------------------------------	---------	---------	---------	-------

^aFisher's exact test.

¹Some patients developed more than one complication. Data are presented as numbers and percentages.

BMTs: Bone marrow transplantations