

A Pilot Study of Microtransplantation of Peripheral Blood Stem Cells for Patients with Advanced Hematologic Malignancies

Thesis

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Dedication

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List of Abbreviations

ABV	: Doxorubicin, bleomycin, vinblastine)
ABVD	: Adriamycin, bleomycin, vinblastine, and dacarbazine
ADCs	: Antibody-drug conjugates
ALL	: Acute lymphoblastic leukemia
AML	: Acute myeloid leukemia
AP	: Accelerated phase
APCs	: Antigen presenting cells
ASCT	: Allogeneic stem cell transplantation
BCR-ABL	: Breakpoint cluster region-Abelson fusion gene
BEACOPP	: Bleomycin, etoposide, doxorubicin (Adriamycin), cyclophosphamide, vincristine, procarbazine and prednisone)
BEACOPPesc	: bleomycin, etoposide, adriamycin, cyclophosphamide, vincristine, procarbazine, prednisone escalated dose regimen
BEAM	: Carmustine, etoposide, cytarabine, and melphalan
BM	: Bone marrow
BP	: Blast phase
CB	: Cord blood
CBF	: Core binding factor
CBU	: Cord blood units
CCyR	: Complete cytogenetic response
CEBPA	: CCAAT-enhancer binding protein alpha
cHL	: Classical Hodgkin's lymphoma
CLL	: Chronic lymphocytic leukemia
CML	: Chronic myelocytic leukemia
CMR	: Complete molecular response
CNS	: Central nervous system

List of Abbreviations (Cont.)

COPP	: Cyclophosphamide, vincristine, procarbazine, prednisone)
CP	: Chronic phase
CR	: Complete remission
CTCL	: Cutaneous T-cell lymphoma
CTD	: Cyclophosphamide, thalidomide, dexamethasone
DHAP	: Dexamethasone/high-dose Ara-C/ cisplatin
DLBCL	: Diffuse large B-cell lymphoma
DLI	: Donor lymphocyte infusion
DMNT3A	: DNA (cytosine-5-)-methyltransferase 3 alpha
DSA	: Donor-specific antibody
ELN	: European Leukemia Net
FCR	: Fludrabine, cyclophosphamide, rituximab
FDA	: US Food and Drug Administration
FISH	: Fluorescence in situ hybridization
FL	: Follicular lymphoma
FLT3	: Fms-related tyrosine kinase3
G-CSF	: Granulocyte colony-stimulating factor
G-PBSC	: Granulocyte colony-stimulating factor-mobilized donor peripheral blood stem cells
GVHD	: Graft-versus-host disease
GVT	: Graft versus-tumor
HEL	: High expression loci
HL	: Hodgkin's lymphoma
HL	: Hodgkin's lymphoma
HLA	: Human leukocyte antigen
HM	: Hematological malignancies
HRS	: Hodgkin and Reed-Sternberg
ICE	: Ifosfamide/carboplatin/etoposide
IFN- γ	: Interferone gamma
IFRT	: Involved-field radiotherapy

List of Abbreviations (Cont.)

IFRT	: Involved-field RT.
IGEV	: Ifosfamide/gemcitabine/vinorelbine
IMEP	: Ifosfamide, methotrexate, etoposide and prednisone
IMWG	: International working myeloma group
ISRT	: Involved-site radiotherapy
ISS	: International Staging System
ITDs	: Internal tandem duplications
KD	: Kinase domain
KIR	: Killer immunoglobulin-like receptors
LDCHL	: Lymphocyte depletion Classical Hodgkin's lymphoma
LEL	: Low expression loci
LRCHL	: Lymphocyte rich Classical Hodgkin's lymphoma
MCCHL	: Mixed cellularity Classical Hodgkin's lymphoma
MCL	: Mantle-cell lymphoma
MCyR	: Major cytogenetic response
MDS	: Myelodysplastic syndrome
MDS/MPN	: Myelodysplastic /myeloproliferative neoplasm
MGUS	: Monoclonal gammopathy of undetermined significance
MHC	: Major histocompatibility
MM	: Multiple myeloma
MMR	: Major molecular response
MOPP	: Mustard (mechlorethamine), Oncovin (vincristine), procarbazine, and prednisone)
MP	: Melphalan, prednisone
MPT	: Melphalan, prednisone, thalidomide
MRD	: Matched related donors

List of Abbreviations (Cont.)

MUD	: Matched unrelated donors
MURD	: Mismatched unrelated donor
MURD	: HLA-mismatched unrelated donor
MZL	: Marginal zone lymphoma
NHL	: Non-Hodgkin lymphoma
NK	: Natural killer cell
NLPHL	: Nodular lymphocyte predominance HL
NLPHL	: Nodular lymphocyte predominant Hodgkin's lymphoma
NPM1	: Nucleophosmin
NSCHL	: Nodular sclerosis Classical Hodgkin's lymphoma
ORR	: Overall response rate
OS	: Overall survival
PAD	: Bortezomib, doxorubicin, dexamethasone
PB	: Peripheral blood
PCyR	: Partial cytogenetic response
PD	: Progressive disease
PET	: Positron emission tomography
PFS	: Progression-free survival
PR	: Partial remission
PTCL	: Peripheral T-cell lymphoma
RCHOP	: Rituximab with cyclophosphamide, doxorubicin, vincristine, and prednisone
R-ESHAP	: Rituximab, etoposide, methylprednisone, cytarabine, and cisplatin
RT	: Radiotherapy
RT-PCR	: Reverse transcriptase-polymerase chain reaction
RVD	: Lenalidomide, bortezomib, dexamethasone
SD	: Stable disease

List of Abbreviations (Cont.)

SLL/CLL	:	Small-cell lymphocytic lymphoma/chronic lymphocytic leukemia and lymphoblastic lymphoma
SMM	:	Smouldering multiple myeloma
SRY	:	Sex determining region on Y chromosome
TKI	:	Tyrosine kinase inhibitors
TRM	:	Transplant-related mortality
UCB	:	Umbilical cord blood
UD-SCT	:	Unrelated donor-stem cell transplantation
URD	:	Unrelated donor
VCD	:	Bortezomib, cyclophosphamide, dexamethasone
VMP	:	Bortezomib, melphalan, prednisone
VNTR	:	Variable number of tandem repeats
VTD	:	Bortezomib, thalidomide, dexamethasone
WBC's	:	White blood cells
WHO	:	World Health Organization

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