



Assessment of Serum IL-15 in Adult Acute Leukemia Patients

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سببنا انك لا تعلم لنا
إلا ما علمتنا إنك أنت
العليم العظيم

صدق الله العظيم

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List of Abbreviations

Abb.	Full term
α-KG	α -ketoglutarate
2-HG	2-hydroxyglutarate
ABL1	Abelson Murine Leukemia 1
ADC	Antibody-Drug Conjugate
ADCC	Antibody-Dependent Cell-Mediated Cytotoxicity
AICD	Activation Induced Cell Death
AIDS	Acquired Immune Deficiency Syndrome
ALL	Acute Lymphoblastic Leukemia
Allo-SCT	Allogenic Stem Cell Transplantation
AML	Acute Myeloid Leukemia
APCs	Antigen Presenting Cells
APL	Acute Promyelocytic Leukemia
ASXL1	Additional Sex Combs-Like
ATL	Adult T cell Leukemia
ATO	Arsenic Trioxide
ATRA	All-Trans-Retinoic Acid
AYA	Adolescents and Young Adults
BCL-2 gene	B-Cell Lymphoma 2 Gene
B-CLL	B-Chronic Lymphocytic Leukemia
BCP	B-Cell Precursor ALL
BCR	B cell receptor
BCR-ABL1	Breakpoint Cluster Region-Abelson murine leukemia 1
BiTE	Bispecific T cell Engager
C&Ckines	Cytokines & Chemokines
CAR T cells	Chimeric Antigen Receptor-Modified T Cells
CBC	Complete Blood Picture
CBF-β	Core Binding Factor Beta
CD	Cluster of Differentiation
CDC	complement dependent cytotoxicity
CDKN2A/B	Cyclin-Dependent Kinase Inhibitor 2A/B
CEBPA	CCAAT-Enhancer Binding Protein A

List of Abbreviations Cont...

Abb.	Full term
cGy	Centigray
cIgM	Cytoplasmic IgM
c-KIT	v-kit Hardy–Zuckerman 4 feline sarcoma viral oncogene homologue
CML	Chronic Myeloid Leukemia
CMML	Chronic Myelomonocytic Leukemia
CMR	Complete Molecular Response
CNL	Chronic Neutrophilic Leukemia
CNS	Central Nervous System
CR	Complete Remission
CRc	Composite Complete Response
CRD	Complete Remission Duration
CREBBP	cAMP-Response Element Binding Protein
Cri	CR with incomplete count recovery
Cri	CR with incomplete hematologic recovery
CRLF2	Cytokine Receptor-Like Factor 2
CRS	Cytokine Release Syndrome
CSF	Cerebrospinal Fluid
CSF1R	Colony Stimulating Factor 1 Receptor
CT	Computerized Tomography
CTC	Cutaneous T cell Lymphoma
CTL	Cytotoxic T lymphocytes
CXCL10	C-X-C Motif Chemokine Ligand 10
CXCR3	C-X-C Motif Chemokine Receptor 3
DART	Dual-Affinity Retargeting
DC	Dendritic Cells
del	Deletion
DFS	Disease-Free Survival
DIPSS	Dynamic International Prognostic Scoring System
DNA	Deoxyribonucleic Acid
DNMT3A	DNA Methyltransferase 3A

DS Down Syndrome

List of Abbreviations Cont...

Abb.	Full term
EATL	Enteropathy - Associated T cell Lymphoma
EBF1	Early B-Cell Factor 1
EBF1-PDGFRB	Early B-cell factor 1-platelet-Derived Growth Factor Receptor- β
EBV	Epstein-Barr virus
ECOG	Eastern Cooperative Oncology Group
EFS	Event Free Survival
ELISA	Enzyme Linked Immunosorbant Assay
ELN	European Leukemia Net
EPOR	Erythropoietin Receptor
ERK1/2	Extracellular Signal-Regulated Protein Kinases 1 and 2
ESR	Erythrocyte Sedimentation Rate
ETP ALL	Early T-Precursor ALL
ETV6-RUNX1	Runt-Related Transcription Factor 1
EVI1 gene	Ecotropic Viral Integration Site 1 gene
EZH2 gene	Enhancer of Zeste Homolog 2 gene
FAB classification	The French–American–British classification
FAP	Fibroblast Activation Protein
Fc region	The fragment crystallizable region
FDA	Food and Drug Administration
FISH	Fluorescence in Situ Hybridisation
FL	Follicular Lymphoma
FLT3	FMS-Like Tyrosine Kinase 3
G-CSF	Granulocyte Colony Stimulating Factor
GEP	Gene Expression Profiling
GO	Gemtuzumab Ozogamicin
GVHD	Graft versus host disease
HCT	Hematopoietic cell transplantation
HD	High Dose
Hdac-1	Histone Deacetylase 1

HDACs..... Histone Deacetylases
HIV Human Immunodeficiency Virus

List of Abbreviations Cont...

Abb.	Full term
HL.....	Hodgkin's Lymphoma
HLA.....	Human Leucocyte Antigen
HMA.....	Hypomethylating Agents
HR.....	High Risk
HSC.....	Hematopoietic Stem Cell
HTLV-1.....	Human T Cell Lymphotropic Virus-1
HTLV1.....	Human T-Lymphotropic Virus Type 1
i.th.....	Intrathecal
i.v.....	Intravenous
iAMP21.....	Intrachromosomal Amplification of Chromosome 21
IBD.....	Inflammatory Bowel Disease
ICPIs.....	Immune Checkpoint Inhibitors
IDH1.....	Isocitrate Dehydrogenase 1
IDH2.....	Isocitrate Dehydrogenase 2
IFN- γ	Interferon Gamma
IFN- α	Interferon Alpha
IGH-CRLF2.....	Immunoglobulin Heavy Chain Locus-cytokine Receptor-like factor 2
IKZF1.....	IKAROS Family Zinc Finger 1
IL-15.....	Interleukin 15
IL3-IGH gene....	Interleukin 13-Immunoglobulin Heavy Chain Gene
IL7R.....	Interleukin 7 Receptor
inv.....	Inversion
IO.....	Inotuzumab Ozogamicin
ITD.....	Internal Tandm Duplicate
JAK2.....	Janus Kinase 2
kDa.....	Kilodalton
KD-ALL.....	Kinase Driven ALL
LAIP.....	Leukaemia-Associated Immunophenotype

LDAC Low Dose Cytarabine
LDH..... Lactate Dehydrogenase

List of Abbreviations Cont...

Abb.	Full term
LGL	Large Granular Lymphocyte Leukemia
m RNA	Messenger Ribonucleic Acid
mAb	Monoclonal AB
mAB	Monoclonal antibodies
MAC	Myeloablative Conditioning
MCL-1	Myeloid Cell Leukemia 1 Gene
MFC	Multi-Colour Flowcytometry
MHC	Major Histocompatibility Complex
MICA	MHC Class I Polypeptide-Related Sequence A
miR	microRNA
MLFS	Morphologic Leukemia-Free State
MM	Multiple Myeloma
MMAF	Monomethyla-Uristatin F
molCR	Complete Molecular Remission
molFail	Molecular Failure
MolRel	Molecular Relapse
MPN	Myeloproliferative Neoplasm
MPO	Myeloperoxidase
MRD	Minimal Residual Disease
MS	Multiple Sclerosis
MUD	Matched Unrelated Donors
MUGA scan	A Multigated Acquisition (MUGA) Scan
NF-κB	Nuclear Factor-Kappa B
ng/L	Nanogram per litre
NGS	Next-Generation Sequencing
NK cells	Natural Killer Cells
NKG2D	Natural Killer Group 2D
NOS	No Otherwise Specified
NPM1	Nucleophosmin-1
NRAS	Neuroblastoma-RAS

NT5C2 5'-Nucleotidase, Cytosolic II
NTRK3 Neurotrophic Receptor Tyrosine Kinase 3

List of Abbreviations Cont...

Abb.	Full term
OD value	Optical Density
OS	Overall Survival
p.o	Per Os
PAX5	Paired Box 5
PD-1	Programmed Death-1
PDGFRB	Platelet Derived Growth Factor Receptor Beta
PD-L1	Programmed Death Ligand 1
pg/mL	Picogram per millilitre
Ph chromosome	Philadelphia Chromosome
PI	Pediatric Inspired
PML-RAR-α	Promyelocytic Leukemia/Retinoic Acid Receptor Alpha
PR	Partial Remission
PTD	Partial Tandem Duplication
PV	Predicative Value
P-value	Probability
qPCR	Quantitative Polymerase Chain Reaction
R/R	Relapsed /Refractory
RA	Rheumatoid Arthritis
RIC	Reduced Intensity Conditioning
ROC	Receiver Operating Characteristic
RPM	Revolutions Per Minute
RT-PCR	Reverse Transcriptase Polymerase chain reaction
SD	Standard Deviation
sIg (kappa or lambda)	Surface Immunoglobulin
SNP	Single Nucleotide Polymorphism
SPSS	Statistical Program for Social Science
SR	Standard Risk
SRSF2	Serine and Arginine Rich Splicing Factor 2

STAT3 Signal transducer and activator of
transcription 3
STP Signal Transduction Pathway

List of Abbreviations Cont...

Abb.	Full term
T reg cells	T Regulatory cells
t	Translocation
TAM	Transient Abnormal Myelopoiesis
t-AML	Therapy Related Acute Myeloid Leukemia
TCF3-PBX1	Transcription Factor 3-pre-B-cell Leukemia Homeobox 1
TdT	Terminal Deoxynucleotidyl Transferase
TET2	Ten-Eleven Translocation 2
TKD	Tyrosine Kinase Domain
TKI	Tyrosine Kinase Inhibitor
TLR9	TLR9 Toll Like Receptor 9
TLS	Tumour Lysis Syndrome
t-MDS	Therapy related Myelodysplastic Syndrome
TP53	Tumor Protein P53
TRAIL	TNF-Related Apoptosis Inducing Ligand
TSLPR	Thymocyte Stromal Lymphopoietin Receptor
TYK2	Tyrosine Kinase 2
VCAM-1+	Vascular Cell Adhesion Protein 1
VEGFR	Vascular Endothelial Growth Factor
WBC	White Blood Cell
WHO	World Health Organization
WT1	Wilms Tumor 1 Gene
μL	Microlitre

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