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٢٠١٥

Urinary immunoglobulin M as a novel biomarker for disease activity of lupus nephritis

Thesis

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In Internal Medicine

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بسم الله الرحمن الرحيم

وَعَلَّمَكَ مَا لَمْ تَكُنْ تَعْلَمُ وَكَانَ فَضْلُ اللهِ عَلَيْكَ عَظِيماً

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CONTENTS

LIST OF ABBREVIATIONS

Ab	:Monoclonal antibody.
ACE	: Angiotensin Converting Enzyme.
ACR	:American College of Rheumatology.
AGP	: α1-acid-glycoprotein
ALMS	: the Aspreva Lupus Management Study
ANAs	:Anti-Nuclear Antibodies.
ANCA	: Antineutrophil cytoplasmic-antigen autoantibodies.
Anti-dsDNA	:Anti-Double stranded Deoxy Ribonucleic Acid.
Anti La/SS-B	: Extractable nuclear antigens
AP-l	:Activator protein-1.
APRIL	:A Proliferation-Inducing Ligand.
ARBs	:Angiotensin II Receptor Blockers.
ASCT	:Autologous stem cell transplantation.
AZA	:Azathioprine.
β2-GPI	: IgM antiphospholipid antibodies that bind to beta-2-glycoprotein I
B2 cells	: follicular B cells
BCR	: B cell receptors
BILAG	:British Isles Lupus Assessment Group.
BLyS	:B-lymphocyte Stimulator.
BUN	:Blood Urea Nitrogen.
BXSB	: In-bred strains of mice
BWF :	1hybrid between NZ andWNZ
C1INH	:Complement 1 Inhibitor.
C1q	:Complement 1q.
C2	:Complement 2.
C3	:Complement 3.
C4	:Complement 4.
CAMs	: Cell adhesion molecules

cAMP	:Cyclic adenosine monophosphate.
CCR5	: C-C chemokine receptor type 5
cGN	:Crescent glomerulonephritis.
CH 50	: Total hemolytic complement.
CNS	:Central Nervous System.
CNV	: the gene copy number variation
CP	: ceruloplasmin
CRP	:Reactive Protein.
CTLA4	: Cytotoxic T-Lymphocyte Antigen 4
CXCR	:Human CXC chemokine receptors.
CXCL10	: chemokine (C-X-C motif) ligand 10
CYC	:Cyclophosphamide.
DARC	:Duffy antigen receptor for chemokines.
DCs	: Dendritic Cells
DLE	: Discoid lupus erythematosus.
DNA	: Double stranded DNA.
DN T cells	: Double negative T cells
DPLN	: diffuse proliferative lupus nephritis
DSG	: novel immunosuppressant 15-deoxyspergualin
EBV	:Epstein Barr Virus.
ECLAM	:European Consensus Lupus Activity Measurment.
ELNT	: The Euro-Lupus Nephritis Trial
ENA-78	:Epithelial neutrophil activating protein-78 .
ENAS	: Extractable nuclear antigen antibodies
ESR	:Erythrocyte Sedimentation Rate.
ESRD	:End stage renal disease.
EXPLORER	: Rituximab in patients with Severe Systemic Lupus Erythematosus
FAIM3	: Fas apoptotic inhibitory molecule 3
Fc	: Crystallizable fragment.
FcγR	: Fc gamma receptor

FhT cells	: Follicular helper T cells
GBM	: Glomerular basement membrane .
GC	:Glucocortecoid.
GM-CSF	: Granulocyte macrophage colony stimulating factor
GWAS	: Genome-wide association study
HA-IgG	: Heat-aggregated IgG
HLA	:Human Leukocyte Antigens.
HMGB1	: High mobility group box 1 protein
ICAM-1	: Intracellular adhesion molecule-1.
ICOS	: Inducing costimulator
IFN	:Interferon.
IgA	: Immunoglobulin A.
IgG	: Immunoglobulin G.
IgG2	: Immunoglobulin G subclass 2
IL	:Interleukin.
IP-10	: IFN-gamma-induced protein 10
ISN/RPS	:International Society of Pathology/Renal Pathology Society.
ITGAM	:Integrin-α-M
IVP	: Intravenous pyelogram.
κβNF	: kappa beta nuclear factor
KIM-1	: kidney injury molecule-1
LAI	:Lupus Activity Index.
LDL	:Low density lipoproteins.
LN	:Lupus Nephritis.
LNDAI	: LN disease activity index
LUNAR	: The LUpus Nephritis Assessment with Rituximab
LPGDS	: lipocalin-type prostaglandin D-synthetase
mABs	: Monoclonal antibodies
MAC	: Complement membrane attack complex
MALDI-TOF MS	: Matrix Assisted Laser Desorption/Ionization Time Of Flight Mass Spectrometry

MASP	:Mannan-binding lectin-Associated Serine Protease.
MBL	:Mannan-Binding Lectin pathway.
MCP-1	:Monocyte chemoattractant proteins-1.
MCP-4	:Monocyte chemoattractant proteins-4.
MESNA	:Mercaptoethylamine sulfonate sodium.
MIP-1	:macrophage inflammatory proteins 1.
MLN	: membranous lupus nephritis
MMF	:Mycophenolate mofetil.
MPC-1	: Monocyte chemoattractant protein-1
MRL-Faslpr	: Mice homozygous for the apoptosis-defective Faslpr mutation
mRNA	: Messenger ribonucleic acid.
NFAT	: Nuclear factor of activated T cells
NGAL	: Neutrophil Gelatinase-Associated Lipocalin
NIH	:National Institutes of Health.
NSAIDs	:Non Steroidal Anti-Inflammatory Drugs.
NZB	: New Zealand Black mice
NZWF1	: New ZealandWhite F1 mice
PCR	: Polymerase chain reaction.
(PD-1)	: Programmed death 1 costimulatory receptor
PDGF	: Platelet-derived growth factor
PTEC	: Proximal tubular epithelial cells
PTPN22	the protein tyrosine phosphatase Lyp
PTT	: Partial thromboplastin time.
RANTES	:Regulated upon activated normal T cell expressed and secreted
RTX	:Rituximab.
SB2M/SCysC	: Serum Beta 2-Microglobulin/ Cystatin C Index
SCLE	: Subacute cutaneous lupus erythematosus.
SHP-2	: Nonreceptor protein tyrosine phosphatase
SLAM	:Systemic Lupus Activity Measure.

SLE	:Systemic Lupus Erythematosus.
SLEDI	:Systemic Lupus Erythematosus Disease Activity Index.
SELDI-TOF MS	: Surface Enhanced Laser Desorption Ionization Time Of Flight Mass Spectrometry
SLICC	:Systemic Lupus International Collaborating Clinics.
SMIP	:Small Modular ImmunoPharmaceutical.
SNPs	: Single nucleotide polymorphisms
TCR	: T cell receptor
TdT	: terminal deoxynucleotidyl transferase
TF	: transferrin
TGF	: Transforming growth factor
TLR4	: Toll-like receptor 4
TNF-alpha	:Tumor Necrosis Factor alpha.
TRAIL	: TNF related apoptosis-inducing ligand
Tregs	: T regulatory cells
TWEAK	: TNF-related weak inducer of apoptosis
UV	: Ultraviolet.
Th2, th1	: Lymphocyte T helper 2, T helper1
Th17	: T helper 17
TLR	: Toll-like receptors
TOSO/FAIM3	: a distinct Fc receptor for IgM expressed on B cells
WHO	:World Health Organization classification.

List of Tables

List of Figures