### Endotoxemia as a Risk Factor in Systemic Inflammation and Cardiovascular Disease in Patients on Maintenance Hemodialysis

#### Thesis

Submitted for partial Fulfillment of MD in Internal Medicine

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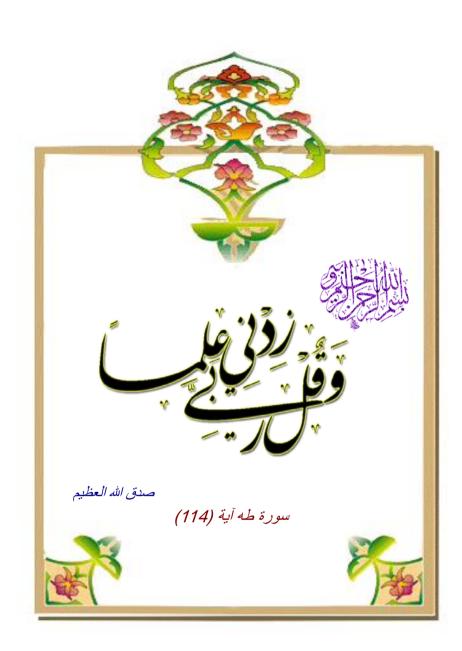
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### List of Abbreviations

Abb. Meaning

ACS .....: Acute coronary syndrome

ADMA.....: Asymmetric dimethyl arginine

ADP .....:Adenosinediphosphate

AGEs .....: Advanced glycation end-products

ALP....: Alkaline phosphatase

AMI .....: Acute myocardial infarction

AMPs....: Antimicrobial peptides

ANSI.....: American National Standards Institute

APKD .....: Adult polycystic kidney disease

BMI....: Body mass index

BP .....: Blood pressure

BUN....: Blood urea nitrogen

Ca....: Calcium

CACS.....: Coronary artery calcium score

CAPD .....: Continuous ambulatory peritoneal

dialysis

CaSR.....: Calcium sensing receptors

CHD....: Coronary heart disease

CHF .....: Congestive heart failure

cIMT....:: Carotid artery intima \_media thickness

CKD....: Chronic kidney disease

CMRI....: Cardiac magnetic resonance imaging

COP..... Cardiac output

CPFA .....: Coupled plasma filtration adsorption

CRP .....: C-reactive protein

CRRT....:: Continuous renal replacement therapy

CTnI....: Cardiac troponin I

CTnT....: Cardiac troponin T

CV .....: Cardiovascular

CVA....: Cerebrovascular accident

CVDs .....: Cardiovascular diseases

DBP .....: Diastolic blood pressure

DIC .....: Disseminated intravascular coagulation

E....: Early trans-mitral diastolic velocity

e'....: Early diastolic velocity of the mitral

annulus

EAA....: Endotoxin activity assay

EBPG.....: European Best Practice guidelines

EF .....: Ejection fraction

EPO....: Erythropoietin

ESA..... Erythropoiesis-stimulating agents

ESP .....: Endotoxin scattering photometry

ESRD....: End stage renal disease

FAO .....: The Food and Agriculture Organization

FGF23....: Fibroblast growth factor 23

FRS ....: Framingham risk score

GDF-15....: Growth differentiation factor-15

GFR .....: Glomerular filtration rate

GIT .....: Gastrointestinal tract

GLP-2 ....: Glucagon-like peptide 2

HCO....: High cut-off

HD .....: Hemodialysis

HDF....: Hemodiafiltration

HF....: Heart failure

HGB....: Hemoglobin

HsCRP .....: High sensitivity CRP

HsTnI.....: High-sensitivity troponin I

i.p....: Intraperitoneal

IDWG .....: Inter-dialytic weight gain

IVSd.....: Inter ventricular septum diameter in

diastole

LA....: Left atrium

LAD....: Left atrial dimension

LAL ....: Limulus amebocyte lysate

LAVi....: Left atrial volume index

LBP....:: Lipopolysaccharide binding protein

LPS ....: Lipopolysaccharide

LV....: Left ventricle

LVEDD....: Left ventricle end-diastolic diameter

LVESD .....: Left ventricle end-systolic diameter

LVH....: Left ventricular hypertrophy

LVM ....: Left ventricular mass

LVMI....: Left ventricular mass index

LVMI....: Left ventricular mass index

LVPW.....: Left ventricular posterior wall diameter in diastole

MAMPs .....: Microbe-associated molecular patterns

MAP .....: Mean arterial blood pressure

MAPK....: Mitogen activated protein kinase

MCP-1 .....: monocyte chemoattractant protein-1

MD2....: Myeloid differentiation factor 2

MI .....: Myocardial infarction

MP .....: Methylation potential

Na .....: Sodium

NAFLD....: Non-alcoholic fatty liver disease

NFAT....: Nuclear factor of activated T cells

NFS.....: Nephrogenic systemic fibrosis

NLRS ...... Nucleotide-binding oligomerization domain receptors

NO .....: Nitric oxide

NOS .....: Nitric oxide synthase

NT-pro-BNP....: N-terminal prohormone brain natriuretic peptide

NUF .....: New single-use ultrafilter

P....: Phosphate

PD....: Peritoneal dialysis

PE .....: Pulmonary embolism

PEPA .....: Polyester-polymer alloy

 $PPAR\gamma$  ...... Peroxisomal proliferator activated receptor gamma PRRs....: Pattern-recognition receptors

PTH....: Parathyroid hormone

PTX3....: Pentraxin 3

RAGE .....: Receptors for advanced glycation end

products

RF....: Renal failure

RO .....: Reverse osmosis

RWT .....: Relative wall thickness

SBP....: Systolic blood pressure

SCD .....: Sudden cardiac death

ST2 .....: Soluble ST-2

TER....:: Trans-epithelial electrical resistance

TG....: Triglycerides

TIA .....: Transient ischemic attacks

TJ .....: Tight junction

TLR4....:: Toll-like receptor 4

TSAT ....: Transferrin saturation

UF....: Ultrafiltration

UFR ....: Ultrafiltration rate

URR....: Urea reduction ratio

VSMC....:: Vascular smooth muscle cell

WHO.....: the World Health Organization

ZO-1 ....: zonulaoccludens 1

2D .....: Two dimensional

3D ....: Three dimensional

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