
LIST OF TABLES

Table	Page
Table (1): The structure and function of SLE antigens -----	7
Table (2): Clinical associaton of autoantibodies in SLE -----	7
Table (3): American College of Rheumatology Revised Classification Criteria for Systemic Lupus Erythematosus-----	8
Table (4): Opposing effects of antiphospholipid antibodies on coagulation -----	19
Table (5): 2006 preliminary criteria for the classification of definite antiphospholipid syndrome -----	22
Table (6): Clinical manifestations of antiphospholipid syndrome -----	24
Table (7): Comparison between the studied groups according to demographic data -----	40
Table (8): Comparison between the patients according to Disease duration -----	42
Table (9): Comparison between the studied groups according to clinical manifestations-----	44
Table (10): Comparison between the studied groups according to complications -----	46
Table (11): Comparison between the studied groups according to medications received -----	49
Table (12): Comparison between the studied groups according to anti-dsDNA and ANA-----	50
Table (13): Comparison between the studied groups according to Prothrombin Time and aPTT -----	52
Table (14): Comparison between the studied groups according to CBC -----	55
Table (15): Comparison between the studied groups according to renal function -----	59
Table (16): Comparison between the studied groups according to urine analysis -----	61
Table (17): Comparison between the studied groups according to antibeta2 glycoprotein-----	63
Table (18): Comparison between the studied groups according to lupus anticoagulant, anticardiolipin antibodies IgM and IgG -----	66
Table (19): Sensitivity, specificity and accuracy for antibeta2 Glycoprotein (IgM and IgG) and Anticardiolipin antibodies (IgM and IgG) with control group and SLE + antiphospholipid -----	69

Table (20):	Sensitivity, specificity and accuracy for antibeta2 Glycoprotein (IgM and IgG) and Anticardiolipin antibodies (IgM and IgG) with control and SLE-----	70
Table (21):	Correlation between antibeta2 Glycoprotein IgM and IgG with different parameters in SLE + APS group-----	71
Table (22):	Correlation between antibeta2 Glycoprotein IgM and IgG with different parameters in SLE group-----	73
Table (23):	Correlation between antibeta2 Glycoprotein IgM and IgG with clinical manifestations in SLE + APS group-----	75
Table (24):	Correlation between antibeta2 Glycoprotein IgM and IgG with clinical manifestations in SLE group-----	76
Table (25):	Correlation between antibeta2 Glycoprotein IgM and IgG and complications in SLE + APS group-----	77
Table (26):	Correlation between antibeta2 Glycoprotein IgM and IgG and complications in SLE group-----	78

LIST OF FIGURES

Figure	Page
Figure (1): Pathogenesis of systemic lupus erythematosus -----	5
Figure (2): Some clinical features of SLE -----	9
Figure (3): Pathogenesis of antiphospholipid syndrome-----	12
Figure (4): How cardiolipin triggers apoptosis -----	14
Figure (5): Cardiolipin serves as a trap in oxidative phosphorylation-----	15
Figure (6): Lupus Anticoagulant-----	16
Figure (7): Two views, related by 180° rotation of the electrostatic potential surface of β_2 -GPI. The molecule has five distinct domains-----	18
Figure (8): Phospholipid involvement in the coagulation pathway-----	20
Figure (9): Potential sites of action of antibodies in APS -----	20
Figure (10): Antiphospholipid antibodies pathogenic mechanisms mediating thrombosis-----	21
Figure (11): Major characteristics of APS include: deep vein thrombosis, pulmonary emboli, myocardial infarction, stroke, livedo reticularis, heart valve disease, recurrent abortions, skin ulcers, impaired blood supply to the fingers, budd-chiari syndrome, and small vessel disease of the kidneys -----	25
Figure (12): A diagram representing the clinical manifestations in 1000 patients having APS. The common clinical manifestations are thrombosis, strokes, pregnancy failure, involvement of blood system, heart injury, and in addition damage to the lungs, eyes, kidneys, skin, joints, bones and abdominal viscera -----	26
Figure (13): Comparison between the studied groups according to age -----	41
Figure (14): Comparison between the studied groups according to sex -----	41
Figure (15): Comparison between the studied groups according to disease duration---	42
Figure (16): Comparison between the studied groups according to clinical manifestation-----	45
Figure (17): Comparison between the studied groups according to complications -----	47
Figure (18): Comparison between the studied groups according to medications received-----	49
Figure (19): Comparison between the studied groups according to anti-dsDNA -----	51

Figure (20): Comparison between the studied groups according to ANA-----	51
Figure (21): Comparison between the studied groups according to Prothrombin Time-----	53
Figure (22): Comparison between the studied groups according to aPTT -----	53
Figure (23): Comparison between the studied groups according to haemoglobin -----	56
Figure (24): Comparison between the studied groups according to WBCs -----	56
Figure (25): Comparison between the studied groups according to platelets -----	57
Figure (26): Comparison between the studied groups according to albumin/creat. Ratio-----	60
Figure (27): Comparison between the studied groups according to antibeta2 glycoprotein IgM-----	64
Figure (28): Comparison between the studied groups according to antibeta2 glycoprotein IgG-----	64
Figure (29): Comparison between the studied groups according to lupus anticoagulant-----	67
Figure (30): Comparison between the studied groups according to anticardiolipin antibodies IgM-----	68
Figure (31): Comparison between the studied groups according to anticardiolipin antibodies Ig-----	68
Figure (32): Correlation between antibeta2 Glycoprotein IgM and IgG with platelets in SLE + antiphospholipid group -----	72
Figure (33): Correlation between antibeta2 Glycoprotein IgM and IgG with partial thromboplastin time in SLE group-----	74

LIST OF ABBREVIATIONS

aCL	: Anticardiolipin
ACR	: American College of Rheumatology
ANA	: Antinuclear antibody
Anti-dsDNA	: Anti-double stranded deoxyribonucleic acid
Anti-RNA	: Anti-ribonucleic acid
Anti-Ro	: Anti rodent
Anti-Sm ab	: Anti-Smith antibody
Anti-β_2GP1	: Anti-beta ₂ glycoprotein 1
APS	: Antiphospholipid syndrome
aPTT	: activated partial thromboplastin time
BCR	: B cell antigen receptor
BILAG	: British Isles Lupus Assessment Group
Blys	: B lymphocyte stimulator
CAPS	: Catastrophic antiphospholipid syndrome
DIL	: Drug induced lupus
dPT	: Diluted prothrombin time
dRVVT	: Diluted Russell's viper venom
DVT	: Deep vein thrombosis
EBV	: Epstein-barr virus
Ec	: Endothelial cell
ECLAM	: European Consensus Lupus Activity Measure
ELISA	: Enzyme linked immunosorbent assay
HDL	: High Density Lipoprotein
HRP	: Horseradish peroxidase
ICAM-1	: Intracellular adhesion molecule-1
IFN	: Interferon
IL	: Interleukin

ISTH	: International Society of Thrombosis and Haemostasis
ITAM	: Immuno-tyrosine activation motif
KCT	: Kaolin clotting time
LAC	: Lupus anticoagulant
LAI	: Lupus Activity Index
mDCs	: Myeloid dendritic cells
NETs	: Neutrophil extracellular traps
NPSLE	: Neuropsychiatric systemic lupus erythematosus
PBS	: Phosphate buffer saline
pDCs	: Plasmacytoid dendritic cells
PF4-HC	: Platelet factor 4–heparin complex
PS	: Phosphatidylserine
SCLE	: Subacute cutaneous lupus
SLE	: Systemic lupus erythematosus
SLEDAI	: Systemic Lupus Erythematosus Disease Activity Index
SLICC	: Systemic Lupus International Collaborating Clinics
ssDNA	: Single stranded deoxyribonucleic acid
TLR	: Toll-like receptor
TMB	: Tetramethyl benzidine
TNF	: Tumor necrosis factor