

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



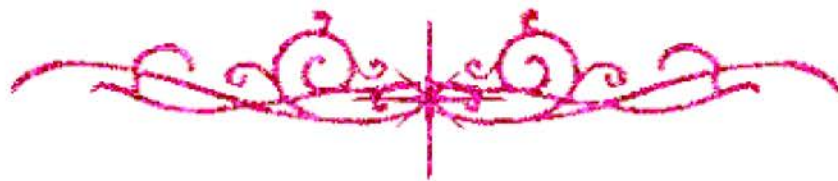
يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



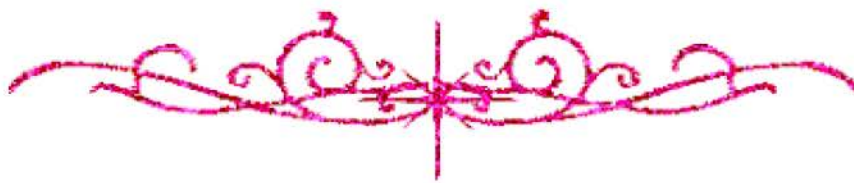


بالرسالة صفحات
لم ترد بالأصل





بعض الوثائق الأصلية تالفة



INTERLEUKIN- TWELVE [IL-12] IN TOXOPLASMOSIS CASES

B11VVE

Thesis Submitted For Partial

Fulfillment Of Master Degree In Parasitology

By

EMAN ABDEL RAHMAN MOHAMED

M.B., B.ch.
Benha Faculty of Medicine
Benha University

Supervisors

Prof. Dr. ALI EL- SAID ALI

Professor of Parasitology
Benha Faculty of Medicine
Benha University

Prof. Dr. AZZA M.S.EI- HAMSHARY

Professor of Parasitology
Benha Faculty of Medicine
Benha University

Ass. Prof. Dr. AMINA I. ABDEL- MABOUD

Assistant professor of Parasitology
Benha Faculty of Medicine
Benha University

Dr. RABAB FAWZY MOHAMED

Lecturer of Parasitology
Benha Faculty of Medicine
Benha University

Benha Faculty of Medicine
Benha University



CONTENTS

	Page
*CONTENTS	I
*ACKNOWLEDGEMENT	II
*LIST OF TABLES	III
*LIST OF FIGURES	V
*LIST OF ABBREVIATIONS	VII
*INTRODUCTION	1
* AIM OF THE WORK	2
*REVIEW OF LITERATURE	3
*PATIENTS AND METHODS.....	54
*RESULTS.....	65
*DISCUSSION	79
*SUMMARY AND CONCLUSION	85
* RECOMMENDATIONS	89
*REFERENCES	90
*ARABIC SUMMARY	

Acknowledgement

*I would like to express my sincere gratitude to **PROF. DR. SAMIA M. RASHED**, Professor of Parasitology Benha Faculty of Medicine, Benha University, for her valuable guidance and continuous advice throughout this work.*

*My deepest thanks to **PROF. DR. ALI. EL. SAID ALI**, Professor of Parasitology, Benha faculty of Medicine, Benha University, for his kind supervision and great help to complete this work.*

*I must greatly thank **DR. AZZA M.S.EL. HAMSHARY** Professor of Parasitology, Benha Faculty of Medicine, Benha University, for her continuous advice and encouragement throughout this work.*

*I want also to express my great appreciation to **DR. AMINA, I. ABDEL- MAABOUD**, Assistant Prof. of Parasitology, Benha Faculty of Medicine, Benha University, for her assistant and support of this work.*

*My special praise is given to **DR. RABAB, F. MOHAMED**, Lecturer of Parasitology, Benha Faculty of Medicine, Benha University, who paid a lot of effort, encouragement and support for this work.*

I want also to express my great appreciation to all the staff members of Parasitology department, Benha Faculty of Medicine, Benha University, for their help and support.

Finally, I would like sincerely to thank my parents for their great help and kind support for me.

List OF Tables OF Review and Results

Table No.	Description	Page No.
Table (1)	Cytokines, their origin and function.	42
Table (2)	The mean of the Optical Density (OD) of ELISA technique of anti- <i>Toxoplasma</i> immunoglobulin G and its seropositivity among various studied groups (70 cases).	66
Table (3)	The mean of the Optical Density (OD) of ELISA technique of anti- <i>Toxoplasma</i> immunoglobulin M and its seropositivity among various studied groups (70 cases).	67
Table (4)	The mean of the optical density (OD) of ELISA technique of (IL12) among various studied groups.	68
Table (5)	Comparison between mean OD of IL 12 among various age groups.	69
Table (6)	Relation between mean OD of IL 12 and gravidity.	70
Table (7)	Relation between mean OD of IL12 and parity among studied groups.	71
Table (8)	Relation between mean (OD) of interleukin – 12 of studied (70) cases and anti- <i>Toxoplasma</i> IgG.	72
Table (9)	Relation between mean OD of interleukin-12 in studied (70) cases and anti- <i>Toxoplasma</i> antibodies (IgM).	73
Table (10)	Collective table for correlation coefficient between mean OD of ELISA technique of interleukin 12 and different variables among studied cases (70 cases).	74
Table (11)	Relation between the mean OD of IL12 and IgG (positive and negative cases) in group I and group II.	75

Table No.	Description	Page No.
Table (12)	Relation between the mean OD of IL12 and IgM (positive and negative cases) in group I (group II has no positive IgM cases).	76
Table (13)	Collective table showing correlation coefficient between mean OD of ELISA for interleukin 12 and different variables among studied groups.	77
Table (14)	Relation between <u>IL12 significant value</u> and the corresponding OD of anti- <i>Toxoplasma</i> antibodies (IgG, IgM) in (70) cases.	78

List OF Figures In Review and Results

Fig. No.	Description	Page No.
Fig. (1)	Structure of the tachyzoite (Electron microscope).	5
Fig. (2)	Life cycle and modes of transmission of <i>T.gondii</i> .	9
Fig. (3)	The mean of the Optical Density (OD) of ELISA technique of anti- <i>Toxoplasma</i> immunoglobulin G (IgG) among various studied groups.	66
Fig. (4)	The mean of the Optical Density (OD) of ELISA technique for anti- <i>Toxoplasma</i> immunoglobulin M among various studied groups.	67
Fig. (5)	The mean of the optical density (OD) of ELISA technique for (IL12) among various studied groups.	68
Fig. (6)	Comparison between mean OD of IL 12 among various age groups.	69
Fig. (7)	Relation between mean OD of IL 12 and gravidity.	70
Fig. (8)	Relation between mean OD of IL12 and parity among studied groups.	71
Fig. (9)	Relation between mean (OD) of interleukin – 12 (IL12) of studies cases and anti- <i>Toxoplasma</i> IgG.	72
Fig. (10)	Relation between mean OD of interleukin-12 (IL12) in studied cases and anti- <i>Toxoplasma</i> antibodies (IgM).	73
Fig. (11)	Correlation coefficient between mean OD of ELISA technique for interleukin 12 and different variables among the cases.	74

Fig. No.	Description	Page No.
Fig. (12)	Relation between the mean OD of IL12 and IgG (positive and negative cases) in group I and group II.	75
Fig. (13)	Relation between the mean OD of IL12 and IgM (positive and negative cases) in group I (group II has no positive IgM cases).	76
Fig. (14)	Correlation coefficient between mean OD of ELISA for interleukin 12 (IL12) and different variables among studied groups	77
Fig. (15)	Relation between IL12 significant value and the corresponding OD of anti- <i>Toxoplasma</i> antibodies (IgG, IgM).	78

LIST OF ABBREVIATIONS

A	= Adenine
A.I	= Activity index
AIDS	= Acquired immunodeficiency syndrome.
APC	= Antigen presenting cells.
B	= B lymphocyte
BMSt	= Bone marrow stromal cells
C	= cytosine
CD 8	= T cytotoxic cell.
CD4	= T helper cell
CF	= Complement fixation.
CLMF	= Cytotoxic lymphocyte maturation factor.
CMI	= Cell mediated immunity
CNS	= Central nervous system
CSA	= Circulating soluble antigen.
CSF	= Cerebrospinal fluid
CTL	= Cytotoxic T lymphocyte.
DNA	= Deoxyribonucleic acid
DT	= Dye test
EBV	= Epstein Barr Virus
EIA	= Enzyme immunoassay electrophoresis.
ELISA	= Enzyme- linked immunosorbent assay
En	= Endothelial cells
Ep	= Epithelial cells
ESA	= Excretory secretory antigens
F	= Fibroblast
FDC	= Follicular dendritic cells
G	= Guanine
GCSF	= Granulocyte colony stimulating factor.
GM-CSF	= Granulocyte – macrophage colony – stimulating factor
HIV	= Human immunodeficiency virus.
IFA	= Indirect fluorescent antibody

Ig A	= Immunoglobulin A.
Ig E	= Immunoglobulin E.
IgG	= Immunoglobulin G.
IgM	= Immunoglobulin M.
IHA	= Indirect haemagglutination.
IL10	= Interleukin -10
IL ₁₂	= Interleukin-12
IL4	= Interleukin-4
IL5	= Interleukin-5.
IL6	= Interleukin -6.
IL7	= Interleukin -7
INF γ	= Interferon- gamma.
IU	= International unite
K.D.	= Kilodalton.
L	= Leucocytes
LA	= Latex agglutination
LAK	= Lymphokine activated killer
LCV	= Live cyst vaccine
LIF	= Leukemia inhibitory factor.
M	= Macrophages'
M ⁺	= Monocyte
mAb	= monoclonal Antibodies.
MAT	= Modified agglutination test.
MC	= Mast cell
MHC-I	= Major histocompatibility complex class I.
MIP	= Membrane inhibitory peptide
MOP	= Membrane cofactor protein
MRC5	= Human embryonic fibroblast cell line
NAP	= Neutrophil activating peptide
NK	= Natural killer
NKSF	= Natural killed cell stimulatory factor.
OD	= Optical density
PAS	= Periodic acid schiff
PBMC	= Peripheral blood mononuclear cells.

PBS	= Phosphate buffer solution.
PCR	= Polymerase chain reaction
PHA	= Phytohemagglutinin.
PLC	= Pityriasis lichemoides chronica
PV	= Parasitophorous vacuole
RIA	= Radio- immunoassay.
RNA	= Ribonucleic acid.
RT	= Reverse transcriptase.
SAC	= Staphylococcus aureus Cowan.
SDS-PAGE	= Sodium dodecyl sulfate- polyacrylamide gel
T	= T lymphocyte
TGF	= Transforming growth factor
Th I	= T helper I
TMB	= Tetramethylbenzidine.
TMP – SMX	= Trimethoprim- sulfamethoxazole.
TNF	= Tumor necrosis factor