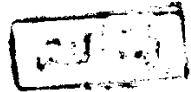


**GENOTYPING OF THE HLA-DRB1
AS A USEFUL PROGNOSTIC MARKER
IN RHEUMATOID ARTHRITIS**



Thesis
submitted for the partial fulfillment of
M.D. Degree in Clinical and Chemical Pathology

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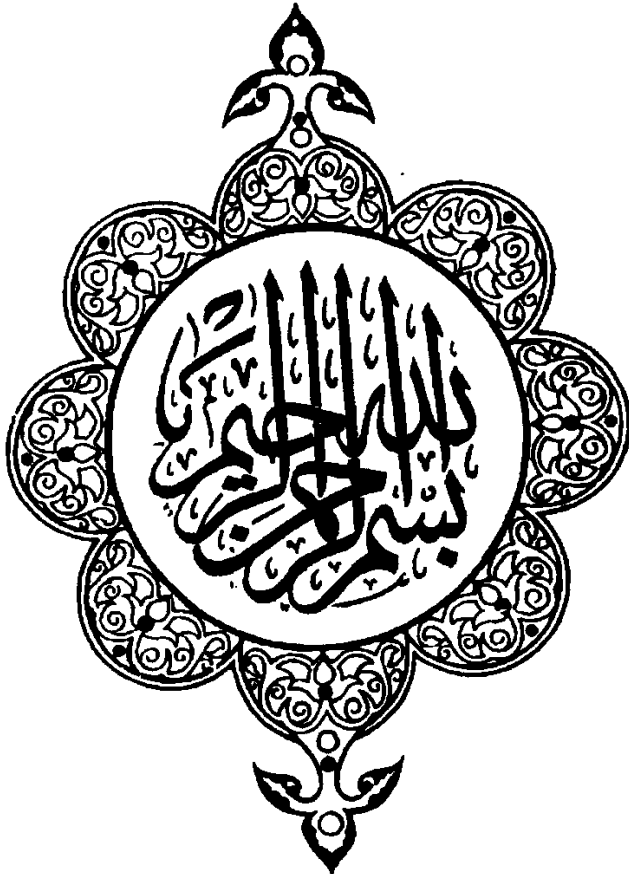
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مكتبة
1994 10/10



ACKNOWLEDGEMENT

I wish to express my deep appreciation and gratitude to **Prof. Dr. LAILA ABD EL-AALA EL-SHAWARBY**, Professor of Clinical Pathology, Faculty of Medicine, Ain Shams University, for her gracious supervision, valuable suggestions and continuous encouragement.

I would like to express special thanks and gratitude to **Prof. Dr. AMANI IBRAHIM SALEH**, Professor of Clinical Pathology, Faculty of Medicine, Ain Shams University, for her supervision, kind help, valuable observation and generous support.

I would like to express my deep thanks and sincere appreciation to **Dr. RANDA ABD EL-WAHAB REDA MABROUK**, Lecturer of Clinical Pathology, Faculty of Medicine, Ain Shams University, for her meticulous supervision, sincere effort and outstanding assistance through every step of this study.

I wish to express my deep thanks to **Dr. HOSAM MOSTAFA FAHMY**, Lecturer of Clinical Pathology, Faculty of Medicine, Ain Shams University, for his great and sincere help and effort during this work.

I would like to express my thanks to **Dr. AHMED MOHAMED ZAKI EL-YASAKI**, Lecturer of Physical Medicine and Rehabilitation, Faculty of Medicine, Ain Shams University, for his help and kind supervision.

Acknowledgement

I wish to express my deep thanks to all members of **Transplantation and Immunology Unit**, Ain Shams University Specialized Hospital for their great and sincere help and effort during conducting the practical part of this work.

Last, but not least, I would like to send my best regards and thanks to My Family and My Wife for their help and continuous encouragement.

Acknowledgement

ABSTRACT

There is a good evidence that HLA-DR is associated with disease severity more than disease susceptibility in RA.

The aim of this work was to explore the role of HLA-DRB1 genes in determining RA susceptibility and severity. Forty patients with RA diagnosed according to ARA criteria were chosen and HLA-DRB1 genotyping was done. Together with data obtained from a retrospective study done on 50 healthy subjects, HLA-DR typing was only done to control group.

The results of the present study showed that HLA-DR10 was the only group to be statistically related to the incidence of RA. Although DR4 and DR1 were higher in incidence, yet they did not prove to be statistically related to incidence of RA. The risky alleles failed to be statistically related to joint deformities, X-Ray changes and extra-articular manifestations. The double dose genotypes when compared statistically with the single dose genotypes regarding their effects on severity of RA, there was no statistical difference.

The distribution of the HLA-DR types and subtypes in the Egyptian community is not identified and it might be that the HLA-DR4 is prevalent in our community. This may explain the difficulty in linking between HLA-DR4 with the incidence and severity of RA. Further extended studies in Egyptian population is recommended to know the prevalent HLA types in the community.

Abstract

LIST OF ABBREVIATIONS

ADCC:	Antibody dependent cellular cytotoxicity.
ANA:	Antinuclear antibodies.
ARA:	American Rheumatism Association.
ARMS:	Amplification refractory mutation system.
AS:	Ankylosing spondylitis.
β_2 m:	Beta ₂ -microglobulin.
cDNA:	Complementary deoxyribonucleic acid.
CDR3:	Complementary determining region 3.
CR2:	Complement receptor 2.
CRP:	C-reactive protein.
CSF:	Colony stimulating factor.
DCs:	Dendritic cells.
DIP:	Distal interphalangeal joints.
DTH:	Delayed type hypersensitivity.
EBV:	Epstein-Barr virus.
ESR:	Erythrocyte sedimentation rate.
Gly CAM-1:	Glycosylated cell adhesion molecule-1.
GM-CSF:	Granulocyte-macrophage colony stimulating factor.
GN:	Glomerulonephritis.
HPA:	Hybridization protection assay.
hsp 60:	Heat shock protein 60.
ICAM:	Intracellular adhesion molecule.
IFN:	Interferon.
Ig:	Immunoglobulin.
IL-1:	Interleukin-1.
IL-1R2:	Interleukin-1 Receptor 2.
IL-2:	Interleukin-2.
LDH:	Lactate dehydrogenase enzyme.
LFA:	Leucocyte function associated antigen.
LMP:	Low molecular weight proteins.
MCP:	Metacarpophalangeal joints.
MHC:	Major histocompatibility complex.
MLC:	Mixed lymphocyte culture.
mRNA:	Messenger ribonucleic acid.

List of Abbreviations

MTP:	Metatarsophalangeal joints.
NF-M:	Neurofilament.
NK:	Natural killer.
NSAIDs:	Non steroidal anti-inflammatory drugs.
OA:	Osteoarthritis.
PB:	Peripheral blood.
PBMC:	Peripheral blood mononuclear cells.
PIP:	Proximal interphalangeal joints.
PLT:	Primed lymphocyte test.
Psa:	Psoriatic arthritis.
RA:	Rheumatoid arthritis.
RAP:	Rheumatoid arthritis precipitin.
ReA:	Reactive arthritis.
RF:	Rheumatoid factor.
RFLP:	Restriction fragment length polymorphism.
RIA:	Radioimmunoassay.
RT:	Reversed transcription.
SAP:	Spondyloarthropathies.
SBT:	Sequence based typing.
sCAM:	Soluble circulating adhesion molecule.
SE:	Shared epitope.
SF:	Synovial fluid.
SLE:	Systemic lupus erythematosus.
SM:	Synovial membrane.
SSO:	Sequence specific oligonucleotide.
SSP:	Sequence specific primers.
TAP:	Transporters associated with antigen processing.
Taq:	Thermus aquaticus.
TCR:	T cell receptor.
TGF-B:	Transforming growth factor-beta.
TNF:	Tumour necrosis factor.
VCAM:	Vascular cell adhesion molecule.
VLA:	Very late activation.

List of Abbreviations

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