SERUM INTERLEUKIN-8 IN EGYPTIAN β-THALASSEMIC CHILDREN

Thesis
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in Pediatrics

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TO

MY

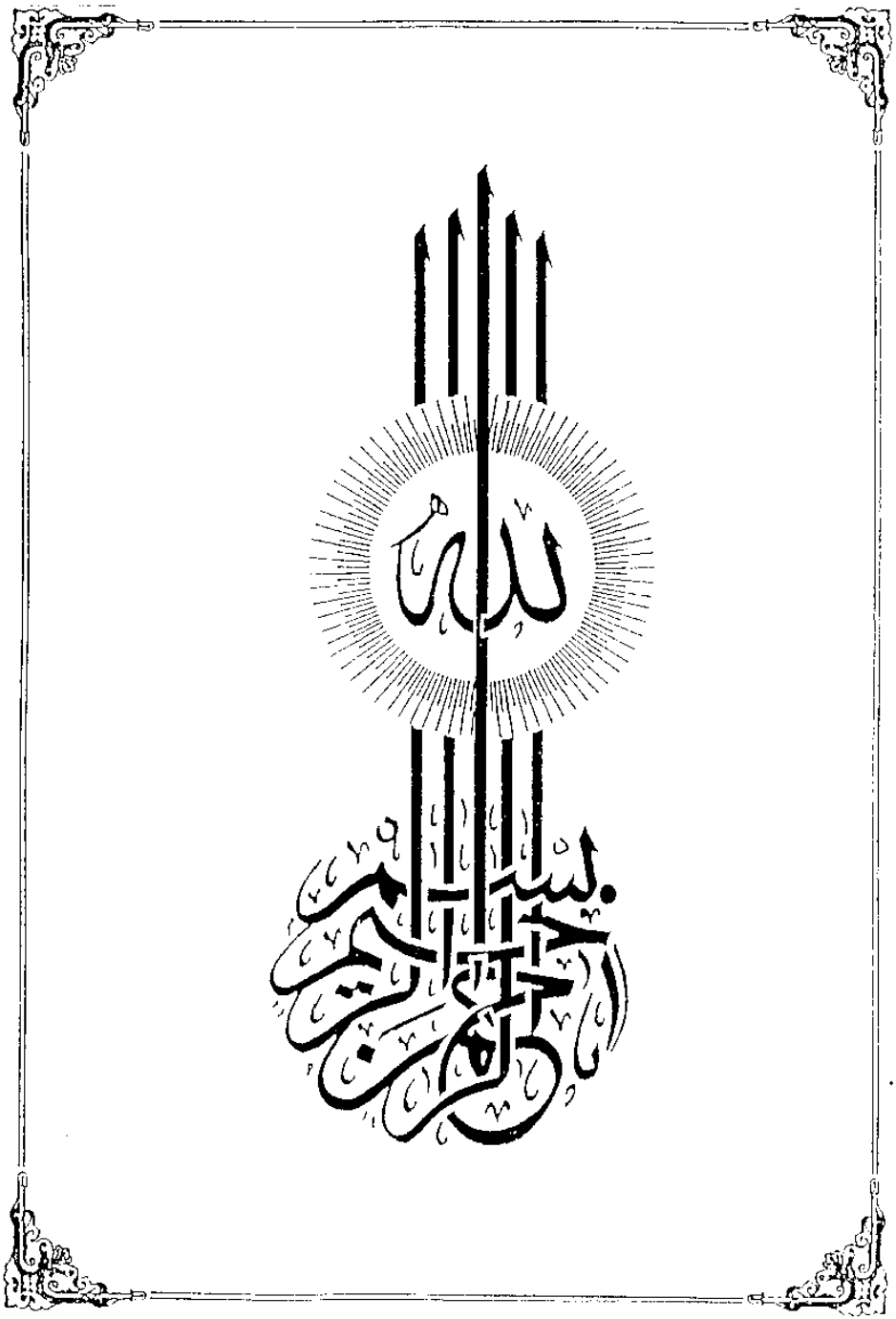
MOTHER,

FATHER,

SISTERS

AND

HUSBAND



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LIST OF ABBREVIATIONS

ALT	Alanine transaminase
α	Alpha
ANOVA	Analysis of variance procedures
ß	Beta
BECGF	ß endothelial cell growth factor
BMT	Bone marrow transplantation
C	Complement
CBC	Complete blood count
CIC	Circulating immune complex
CRP	C-reactive protein
CT	Connective tissue
DF	Desferrioxamine
DNA	Deoxyribonucleic acid
ELISA	Enzyme linked immunosorbant assay
EPO	Erythropoietin
FGF	Fibroblast growth factor
G-CSF	Granulocyte colony-stimulating factor
G-proteins	Guanine nucleotide binding protein
GDP	Guanine diphosphate
gm/dl	Gram per deciliter
GM-CSF	Granulocyte-macrophage colony-stimulating factor
GOT	Glutamic-oxaloacetic transaminase

GPT	Glutamic pyruvic transaminase
GRO	Proteins that attract and activate neutrophils
GTP	Guanine triphosphate
Hb	Haemoglobin
HLA	Human leukocyte antigen
IFN	Interferon
Ig	Immunoglobulin
IL	Interleukin
IV	Intravenous
LAM	Lectin adhesion molecule
LDH	Lactic acid dehydrogenase
LDNAP	Lymphocyte derived neutrophil activating peptide.
M-CSF	Macrophage colony stimulating factor
Mac-I	Macrophage-I
MCH	Mean corpuscular haemoglobin
MCV	Mean corpuscular volume
MDNAP	Monocyte derived neutrophil activating peptide
MDNCF	Monocyte derived neutrophil chemotactic factor
μl	Microliter
mg/kg	Milligram per kilogram
MGSA (gro)	Melanoma growth stimulating activity
ml	Milliliter
mRNA	messenger Ribonucleic acid
NAF	Neutrophil activating factor
NAP	Neutrophil activating peptide

nm	Nanometer
PDGF	Platelet derived growth factor
pg	Picogram
PKC	Protein kinase C
PMNL	Polymorphonuclear leucocytes
RES	Reticuloendothelial system
rh	Recombinant human
RNA	Ribonucleic acid
SAS	Statistical analysis system
SC	Subcutaneous route
SHAM	Salicyl hydroxamic acid
T-cells	Thymus derived lymphocytic cells
TGF	Recombinant human latency associated peptide
TNF	Tumour necrosis factor

INTRODUCTION
AND
AIM OF THE WORK

INTRODUCTION

Thalassemias are a group of disorders occurring frequently in the mediterranean region, the middle east, south east Asia and was first described in Egypt by ***Diwany in 1944***.

Khalifa et al (1992) reported a relative frequency of 52.72/100,000 attendants of the outpatient hematology clinic of children hospital, Ain Shams University, to be ß-thalassemic, constituting 47.7% of the hemolytic anemic patients.

The carrier rate in Egypt varied between 2.1% and 4.5% in the studies of ***Hashim (1978) and Afifi (1987)***.

In 1988 Khalifa et al., reported that thalassemic patients have defective humoral and cellular immunity with increased liability to repeated infections.

Takahashi et al. and Uguccioni et al. in 1993 reported increased level of Interleukin-8 (IL-8) or neutrophil activating peptide-1 as a potent chemotactic stimulus and a major mediator of the acute inflammatory response found in ß-thalassemic patients.

AIM OF THE WORK

The aim of the present study is to measure the serum level of interleukin-8 in Egyptian ß-thalassemic children and correlate its level to different parameters specially liability to infection and phagocytosis.

REVIEW OF LITERATURE