PEDIATRIC ACQUIRED IMMUNODEFICIENCY SYNDROME FROM 1982 TO 1992

ESSAY

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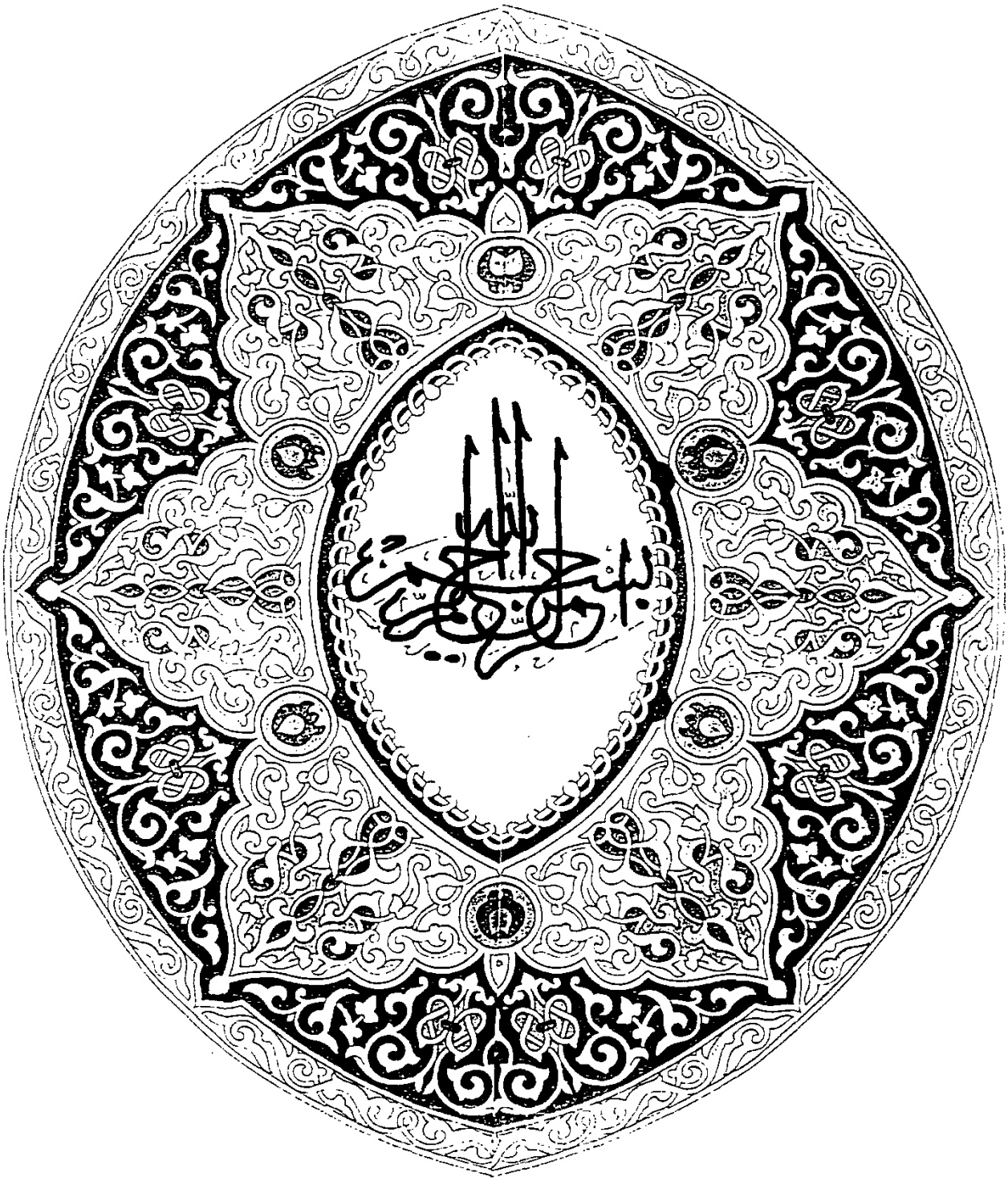

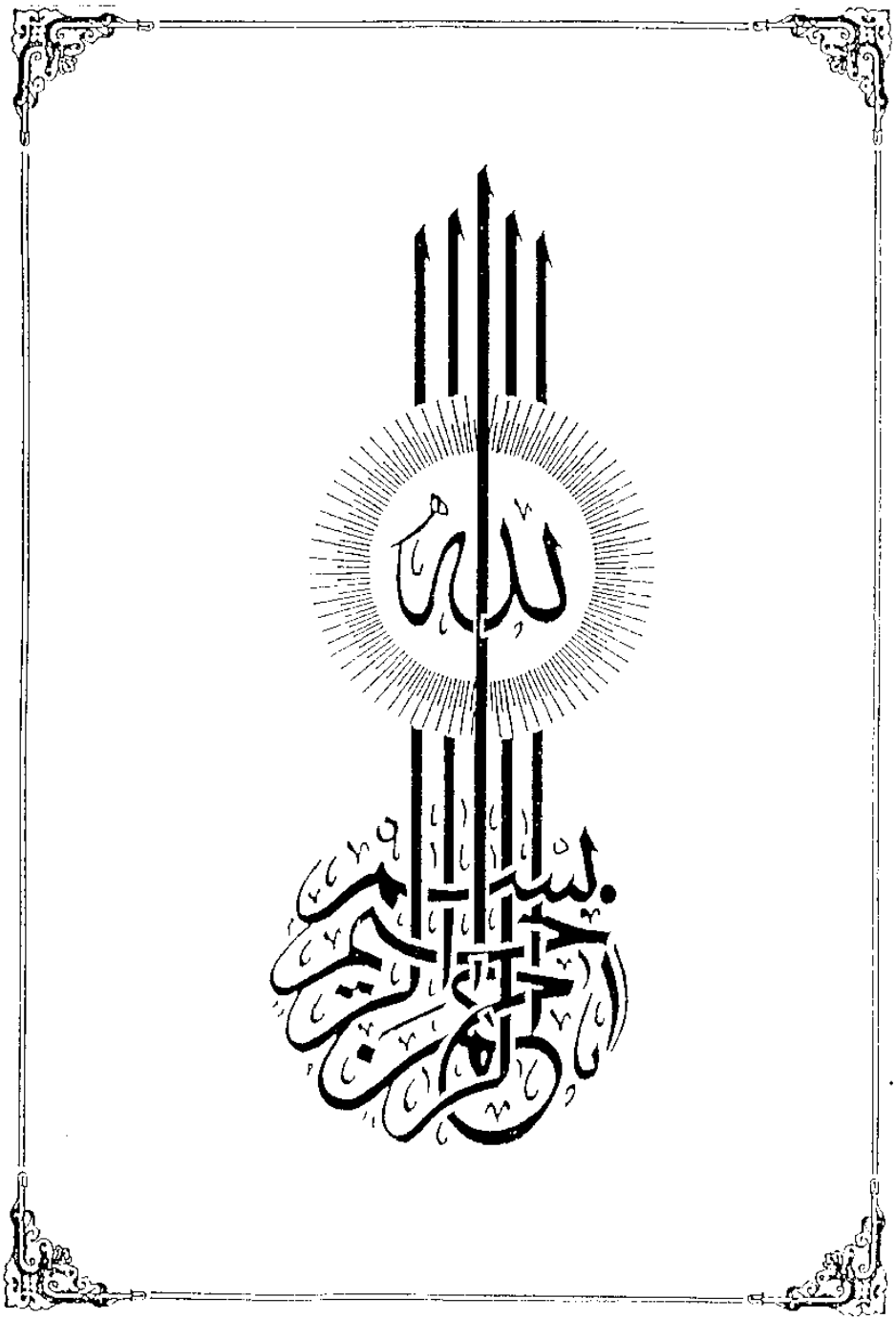

ON MY WAY TO JOIN THE WARRIORS INTO THE BATTLE OF " SHARING THE CHALLENGE " AGAINST PEDIATRIC AIDS. I DEDICATE THIS WORK TO MY DEAR MOTHER, AND THE SPIRIT OF MY DEAR FATHER.

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INTRODUCTION AND AIM OF THE WORK

The acquired immunodeficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV) infection. SIDA is the french term, it means Syndrome d'Immune Deficience Acquise. AIDS started as a limited outbreak, then become an explosive epidemic in a number of countries, and now it is a fatal raging pandemic throughout the world, affecting males and females, adults as well as children, and both the rich and the poor. (*Wahdan, 1991*).

Pediatric AIDS was described in 1982. pediatric HIV disease is the newest chronic illness of children (*Myers and Weitzman, 1991*). HIV was isolated for the first time in 1983 (*Jawetz et al, 1991*).

When AIDS was first recognized in 1981, it was thought to be present only in the USA and particularly among homosexuals, hence it was called the Gay- related immune deficiency (GRID) (*Wahdan, 1991*).

Today, HIV has reached into West and Southern Africa; in Cote d'Ivoire, Abidijan, HIV seroprevalence increased from < 1% in 1987 to > 7% today. Among the

global HIV- infected adults, > 6 million are men and nearly 4 million are women. (*Mann, 1992*).

The majority of paediatric infections are in the sub-Saharan Africa, where over 3 million women have become infected since the start of the pandemic. For the year 2000, WHO maintains its projection that the cumulative total of HIV infections in men, women and children will range between 30 and 40 million (*WHO, 1992*).

The UNICEF estimates that at least when a mother with AIDS dies she will leave two children (UNICEF, 1990). Paediatric HIV- infections occurs through vertical transmission, blood or its products transfusion, and contaminated skin piercing instruments. Mainfestations appear after a period of about 6 months to 7 years. Common manifestations are failure to thrive, chronic diarrhea, persistent mucous candidiasis, hepatosplenomegaly lymphadenopathy, immunologic abnormalities, serious bacterial infections, opportunistic infections and development of some neoplasms (*Falloon et al, 1989*).

Diagnosis is by detection of HIV antibodies,

antigens and cultures, with a variety of recent tests (*Mok, 1992*).

Many drugs have recently been used in clinical trials, with clinical improvements e.g. Azidothymidine (AZT) (*Mok, 1992*). Some vaccines are being used against HIV in trials. So the future is promising (*Jawetz et al, 1991*).

The aim of this work is to highlight the extent of paediatric AIDS from 1982 to 1992 and its recent advances.

ABBREVIATIONS

ACIP : Advisory committe on immunization practices.

ADDC : Antibody dependent cell- mediated cytotoxicity

AIDS : Acquired immunodeficiency syndrome.

ARC : AIDS- related complex

AZT : Azidothymidine.

B2M : Beta 2 microglobulin

BAL : Brochio- alveolar lavage

BPIG : Bacterial polysaccharide immunoglobulin

C3 : Complement 3

CDC : Centres for diseases control

CIFs : Cellular infectivity factors

CMV : Cytomegalo virus

CNS : Central nervous system

CPC : Chronic Passive congestion

CSF : Cerebro spinal fluid

DAD : Diffuse alveolar damage.

DdC : Dideoxy cytidine

DdI : Dideoxy inosine

DIP : Desqumative interstitial pneumonitis

ELISA : Enzyme- linked immunosorbent assay

Env : Envelope gene

E-Z : Edmonston- Zagreb

Fc : Fraction c of an antibody

FDC : Follicular dendritic cell

Fig	: Figure
FSGS	: Focal segmental glomerulosclerosis
FTT	: Failure to thrive
Gag	: Group specific antigen gene of lentiviruses
GM- CSF	: Granulocyte macrophage- colony stimulating factor.
Gp	: Glycoprotein
HBc	: Hepatitis B core
HHVs	: Human herpes viruses
HIV	: Human immunodeficiency virus
HIVAN	: Human immunodeficiency virus - associated nephropathy
HIVIG	: Hyper immune Human immunodeficiency virus immunoglobulin
HTLVs	: Human T lymphocyte viruses
IL-2	: Interleukin- 2
Kb	: Kilo base
Kd	: Kilo dalton
KS	: Kaposi's sarcoma
LIP	: Lymphoid interstitial pneumonitis
LTRs	: Long terminal repeats
MAC	: Mycobacterium- avium intracellulare complex
MHC	: Major histocompatibility complex
MTb	: Mycobacterium tuberculosis
NHL	: Non Hodgkin's lymphoma
NK cells	: Natural killer cells
NRE	: Negative regulatory element

PBLD : Polyclonal B- cell lympho- proliferative disorder

PCP : Pneumocystis carinii pneumonia

Ped : Pediatric

PHA : Phytchemagglutinin

PLH : Pulmonary lymphoid hyperplasia

Pol : Polymerase gene of lentiviruses

PWM : Pok weed mitogen

Rev : Regulatory gene for virus expression

RT : Reverse transcriptase enzyme

Tac : Inter leukin- two receptor

TAR : Trans- acting response element

Tat : Trans activator gene

Tev : Gene producing products functioning as tat and rev products

TM : Trans- membrane HIV gp 41

TNF : Tumor necrosis factor

SAC : Staphylococcus Aureus Cowan I

SIV : Simian immunodeficiency virus

STD : Sexually transmitted disease

STLVs : Simian T- lymphocyte viruses

SU : Surface HIV gp 120

USA : United states of America

USPHS : USA Public Health Services

USSR : Ex United Social Soviet Republics

Vif : Virus infectivity gene of HIV

Vpr : Virus- production gene

Vpu : Viral protein u gene

Vpx : Viral protein x gene

LIST OF TABLES