

PEDIATRIC ACQUIRED IMMUNODEFICIENCY SYNDROME FROM 1982 TO 1992

ESSAY

Submitted for partial fulfillment of
Mastership Degree in Pediatrics
Faculty of Medicine
Ain Shams University

By

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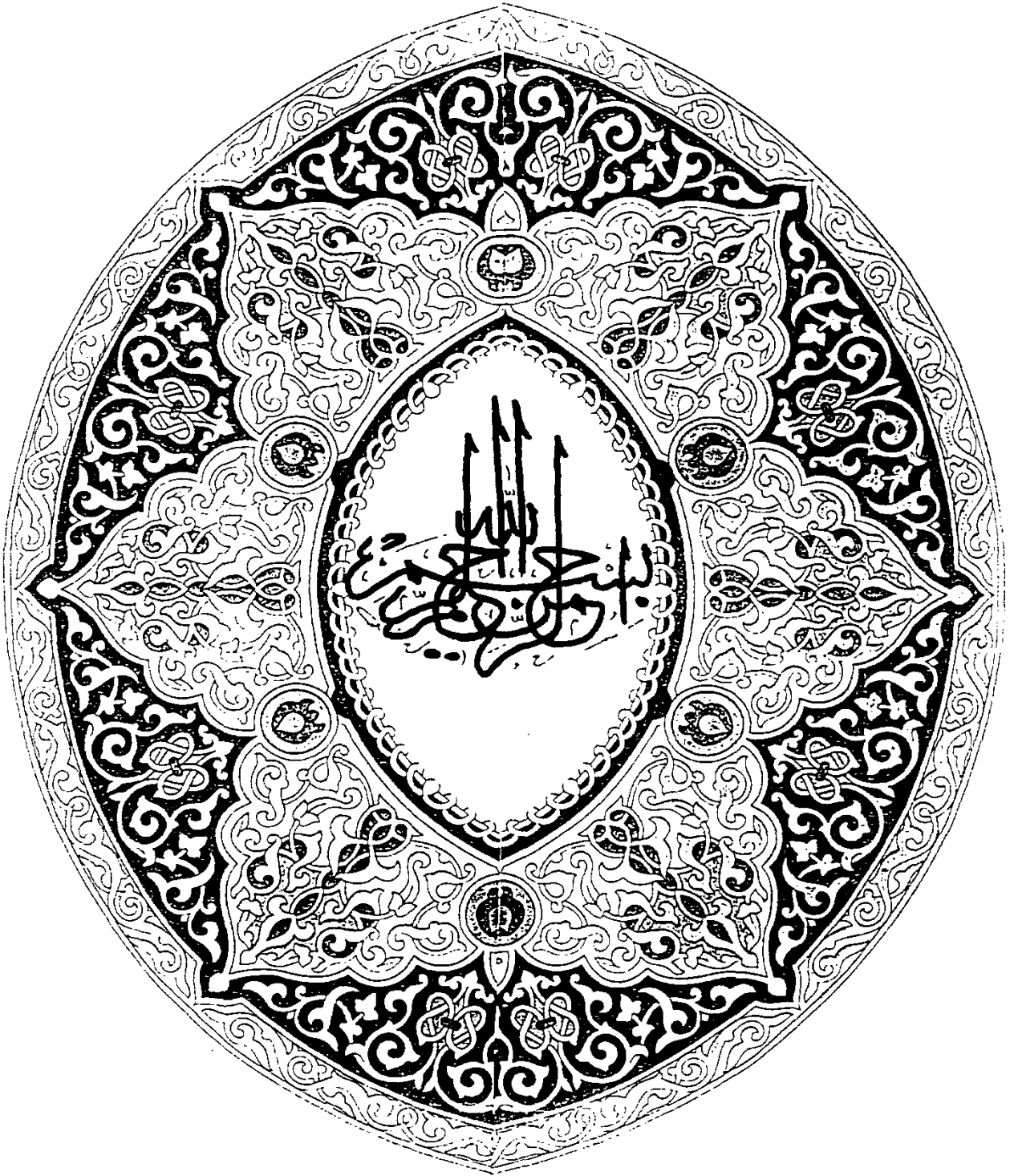
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1992





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.

ACKNOWLEDGMENT

So many lives are involved in the writing of this work, professors, friends, colleagues, and relatives, who have generously shared their experiences with me. It is impossible to mention them by name.

My real debt is to *Prof. Dr. SHEREEN ABD AL FATAH*, Ain Shams Faculty of Medicine, Ped. Department, for her guidance, patience, and constructive supervision.

I am very grateful to the World Health Organization (WHO), *Dr. M.H. WANDAN*, and all WHO staff. "Sharing the challenge", was the first step. The generous fluent scientific WHO informations have made me an AIDS- oriented man.

My special thanks are to the Ped. Department staff, of Ain Shams University, especially *Prof. Dr. A.S. KHALIFA*, *Prof. Dr. K. MOURAD*, *Prof. Dr. Y. AL GAMAL*, *Prof. Dr. M. SALEM*, and *Prof. Dr. G. MOKHTAR*. In addition I would like to thank *Dr. NASR A. MOHAMED*; head of the National AIDS program.

I would like to thank also the staff of Giza Zoo Monkeys Department. Finally, I also thank *Miss EMAN* and *Mr. AYMAN* the computerists who helped me in the printing of this essay for 62 hours.

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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 Deficiencie Acquise. AIDS started as a limited outbreak, then became 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, Abidjan, HIV seroprevalence increased from < 1% in 1987 to > 7% today. Among the

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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. Manifestations 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 committee on immunization practices.
ADDC	: Antibody dependent cell-mediated cytotoxicity
AIDS	: Acquired immunodeficiency syndrome.
ARC	: AIDS-related complex
AZT	: Azidothymidine.
B2M	: Beta 2 microglobulin
BAL	: Bronchio-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.
dC	: Dideoxy cytidine
dI	: Dideoxy inosine
DIP	: Desquamative interstitial pneumonitis
ELISA	: Enzyme-linked immunosorbent assay
Env	: Envelope gene
E-Z	: Edmonston-Zagreb
Fc	: Fraction c of an antibody
FDC	: Follicular dendritic cell

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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

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PBLD	: Polyclonal B- cell lympho- proliferative disorder
PCP	: Pneumocystis carinii pneumonia
Ped	: Pediatric
PHA	: Phytohemagglutinin
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

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