PARVOVIRUS B19 INFECTION IN PATIENTS WITH ERYTHEMA INFECTIOSUM, ARTHROPATHY AND CHRONIC HAEMOLYTIC ANAEMIA

Thesis

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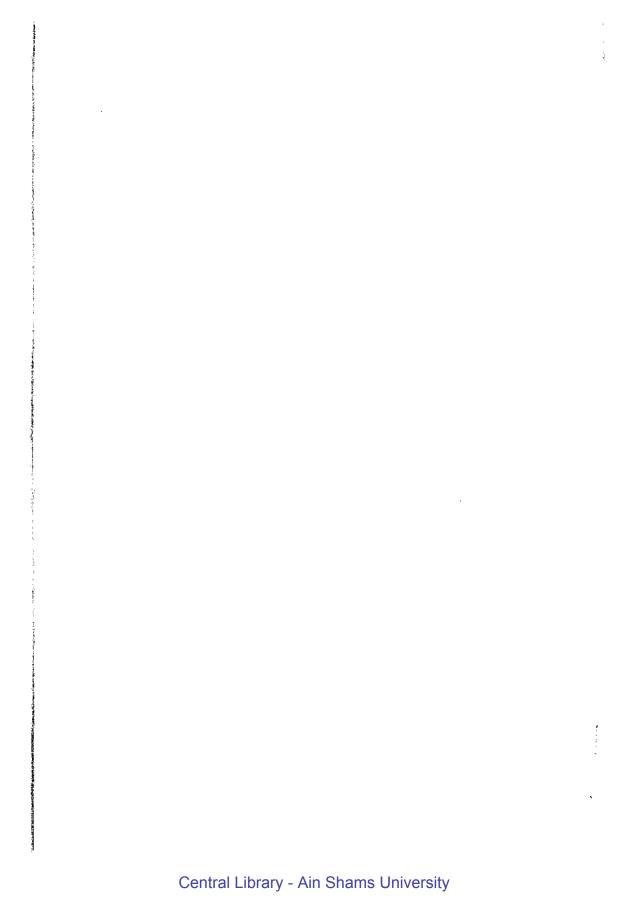
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ABSTRACT

Human parvovirus B19 is a small, single-stranded DNA virus belonging to the taxonomic genus autonomous parvovirus of the family parvoviridae.

In the present study, our aim was to assess the importance of parvovirus B19 infection in cases of erythema infectiosum (group I, n=22), chronic haemolytic anaemia (group II, n=21) and arthralgia (group III, n=22) by detection of parvovirus B19 antigen using counter immunoelectrophoresis and IgM and IgG viral antibodies using ELISA technique.

Our results showed that in group I (EI) parvovirus B19 IgM antibodies were detected in 41%. In group II (CHA) evidence of recent parvovirus B19 infection (antigen and/or IgM) were detected in 7 out 21 cases, 5 of them suffered from aplastic crisis. In group III (arthropathy) parvovirus B19 IgM and IgG antibodies were detected in 54.4%.

We conclude that parvovirus B19 infection could be considered as a causal association with arthropathy and gave a strong support to the proposition that parvovirus B19 is the specific cause of erythema infectiosum and aplastic crisis in chronic haemolytic patients.

Abstract



LIST OF ABBREVIATIONS

AAV: Adeno-associated virus.

AIDS: Acquired Immuno deficiency syndrome.

CDC: Centers for Disease control.
CDNA: Complementary DNA.
CFU-E: Colony-forming unit-Erythyroid.
CHA: Chronic haemolytic anaemia.

CHA: Chronic haemolytic anaemia.
CIE: Counter current Immuno Electrophoresis.
CPV: Canine Parvo Virus.
DBA: Diamond Blackfan anaemia.
DNA: Deoxyribonucleic acid.
EI: Erythema Infectiosum.
ELISA: Enzyme linked Immunosorbent Assay.
EM: Electron Microscopy.
FCS: Fetal calf serum.

FCS: Fetal calf serum.
FPV: Feline parvovirus.

HBsAg: Hepatitis B surface antigen. HLA: Human leucocyte antigen. HPV-B19: Human parvovirus B19.

IEM: Immuno-Electron-Microscopy.

IFA: Indirect Immuno fluorescence Assay.

IgG: Immunoglobulin G.

IgM: Immunoglobulin M.

ISPCR: In situ polymerase chain reaction.

ITP: Idiopathic thrombocytopenic purpura.

nM: Nanometer.

O.D: PCR:

Optical density
Polymerase chain reaction.
Rheumatoid Arthritis.
Rheumatoid Factor
Reverse passive hemagglutinatin.
Radio Immuno Assay. RA: RF:

RPHA:

RIA:

TAC: Transient Aplastic Crisis.

TEC: Transient Erythroblastopenia of

Childhood.

List of Abbreviations



LIST OF FIGURES

Fig.	(1): Ouchterlony gel diffusion test(6)
Fig.	(2): The icosahedral parvovirus B19 particle(13)
	(3): Human parvovirus B19 genome, characteristic hairpin structure(14)
Fig.	(4): Map of parvovirus genome(15)
Fig.	(5): Model for B19 parvovirus DNA replication(17)
Fig.	(6): Postulated replication of parvovirus B19(19)
Fig.	(7): Events that follow intranasal inoculation of virus(26)

List of Figures

Fig.	(8): Immunoelectron micrograph of human parvovirus B19(60)
Fig.	(9): Counter-immunoelectrophoresis(61)
Fig.	(10): Schematic diagram of steps in the antigencapture assay(63)
Fig.	(11): Schematic diagram of steps of the antibody- capture assay(69)
Fig.	(12): Model of IgM ELISA microwell strip(91)
Fig.	(13): Model of IgG ELISA microwell strip(97)
Fig.	(14): Template for counter immuno- electrophoresis(101)
Fig.	(15): ELISA O.D. values of parvovirus B19-IgM in the sera of the group of children with erythema infectiosum in relation to age(114)

List of Figures