

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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لم ترد بالأصل





بعض الوثائق الأصلية تالفة





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**CYTOMEGALOVIRUS IN SOME HAEMATOLOGICAL
DISORDERS AND HEPATITIS C**

THESIS

Submitted in partial fulfillment of the MASTER DEGREE
in CLINICAL PATHOLOGY

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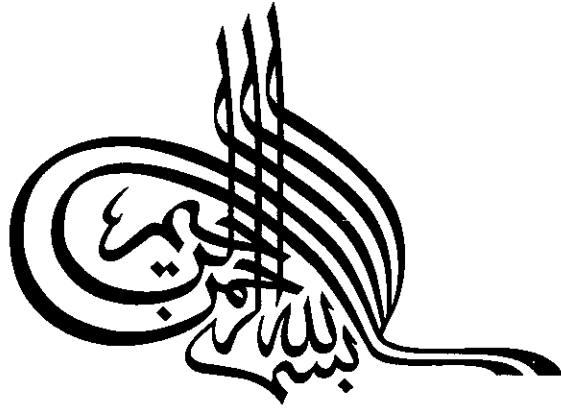
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"قل لو كان البحر مدادا لكلمات ربي لنفد
البحر قبل أن تنفذ كلمات ربي
ولو جئنا بمثله مددا "

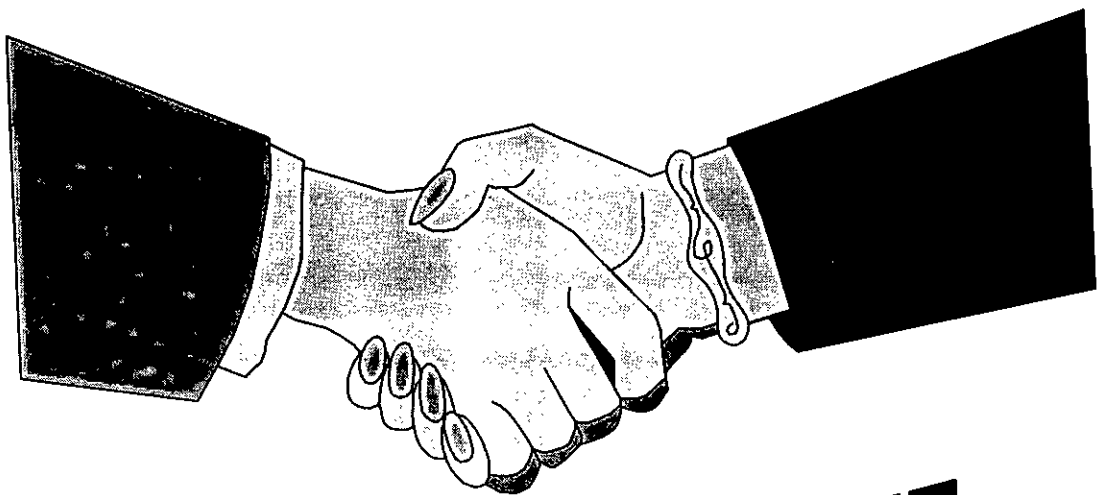
صدق الله العظيم

سورة الكهف

الآية ١٠٩



To my Parents,
my husband, and
my son (Ahmad)



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ARABIC SUMMARY	

LIST OF ABBREVIATIONS

<i>AIDS</i>	: Acquired immunodeficiency syndrome.
<i>ARC</i>	: AIDS related complex.
<i>ATP</i>	: Autoimmune thrombocytopenic purpura.
<i>BFU-E</i>	: Burst forming unit-erythroid.
<i>BMT</i>	: Bone marrow transplantation.
<i>CF</i>	: Cytotoxic factor.
<i>CFU-E</i>	: Colony forming unit- erythroid.
<i>CID</i>	: Cytomegalo inclusion disease.
<i>CPE</i>	: Cytopathic effect.
<i>DSS</i>	: Dengue shock syndrome.
<i>EBV</i>	: Epstein-barr virus.
<i>EIA</i>	: Enzyme immunoassay.
<i>FHL</i>	: Familial hemophagocytic lymphohistiocytosis.
<i>GA</i>	: Granulocyte adherence.
<i>GM-CSF</i>	: Granulocyte macrophage-colony stimulating factor.
<i>HCMV</i>	: Human cytomegalovirus,
<i>HIV</i>	: Human immunodeficiency virus.
<i>HLH</i>	: Hemophagocytic lymphohistiocytosis.
<i>HTLV</i>	: Human t-lymphotropic (Leukemic) virus.

LIST OF ABBREVIATIONS (Continued)

<i>IFA</i>	: Indirect fluorescent antibody.
<i>IHA</i>	: Indirect hemagglutination.
<i>IM</i>	: Infectious mononucleosis.
<i>ITP</i>	: Idiopathic thrombocytopenic purpura.
<i>ITP</i>	: Immunologic thrombocytopenic purpura.
<i>PBL</i>	: Peripheral blood leukocytes.
<i>PCR</i>	: Polymerase chain reaction.
<i>PMNL</i>	: Polymorphonuclear leukocytes.
<i>TAC</i>	: Transient aplastic crisis.
<i>TTP</i>	: Thrombotic thrombocytopenic purpura.
<i>VAHS</i>	: Virus associated hemophagocytic syndrome.

INTRODUCTION AND AIM OF THE WORK

Human cytomegaloviruses (HCMV) are the largest member of herpes viridae family. The host characteristically becomes latently infected after primary infection. CMV infection has a severe clinical course in immunocompromised hosts and newborn infants, in whom its hematological complications including leukopenia, hemolytic anemia and mild thrombocytopenia were recognized. CMV infection is usually asymptomatic or causes self-limited disease that presents as an infectious mononucleosis-like syndrome (*Miyahara et al., 1997*).

Acute infection may lead to severe hematological disorders such as mononucleosis, thrombocytopenia, aplastic and hemolytic anemia (*Sing and Ruscetti, 1995*). CMV infection has long been associated with marrow suppression and myelodysplasia, but the documentation of virus in marrow cells from patients with marrow failure has been difficult to achieve (*Boeckh et al., 1998*).

AIM OF THE WORK:

The aim of this study was to determine the frequency of CMV and its role in complication of some hematological diseases.

CHAPTER (I)

VIRUSES AND HEMATOLOGY

Species from many different families of viruses are capable of infecting human bone marrow cells and inducing damage either by direct cell killing or indirect immune mechanism. Viral infections in patients can be demonstrated by specific molecular and immunologic probes, (*Young and Alter, 1994*).

For some viruses, the description of the role of virus infection in producing specific disease is nearly complete at the molecular level, for other viruses, multiple hematologic syndromes are less precisely linked to infection, (*Hibbs and Young, 1992*).

Hematologic abnormalities are common among virus infections, some specific hematologic syndromes have been associated with particular viral infections. Virus associated hemophagocytic syndrome is a syndrome that follows virus infections and characterized by hemophagocytosis by benign histocytes, (*Baraniski and Young, 1987*).

Infection with hepatitis viruses, Epstein-Barr viurs, cytomegalovirus, human B₁₉ parvovirus, dengue virus, and human immunodeficiency virus is usually accompanied with hematologic changes by different mechanisms as shown in table (1).