CYTOMEGALOVIRUS INFECTIONS

Essay
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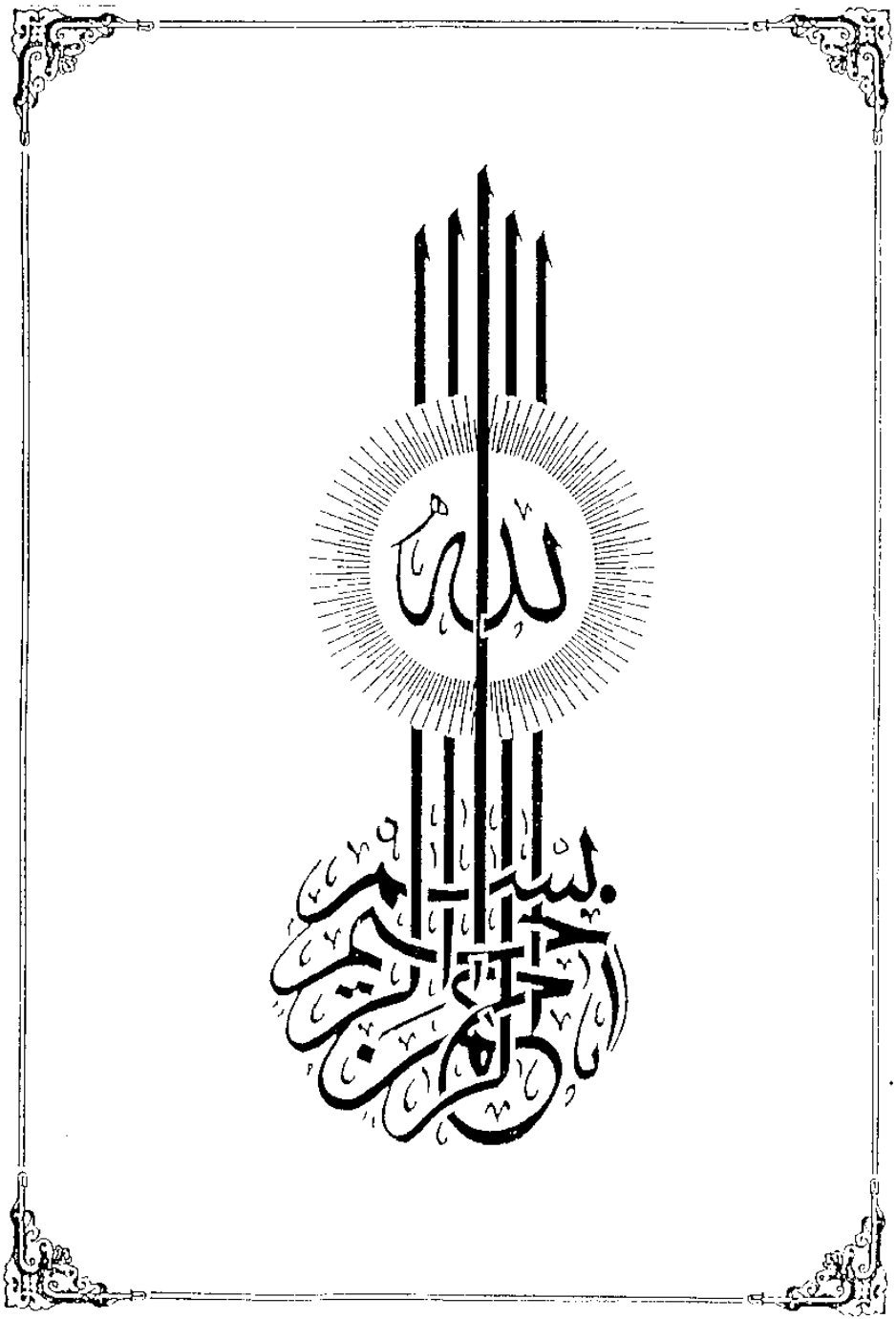

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CMV= Cytomegalovirus

UL= Unique Long

CPE= Cytopathic Effect

LM= Light Aicroscopy

EM= Electron Microscopy

EIA= Enzyme Immunoassay

LA= Latex Agglutination

PP65= Phosphoprotein 65

PCR= Polymerase Chain Reaction

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INTRODUCTION AND AIM OF THE WORK

Introduction:-

Cytomegalovirus (CMV) comprises a group of agents within the herpes virus family known for their widespread distribution in humans and in numerous other mammals ***(Stango et al, 1989)***.

It causes a number of protean disease syndromes in pediatric and adult medicine. Infection is common and reaches most of population, while associated disease is a relatively exceptional event ***(Ho, 1990)***.

The age at which infection occurs differs in various geographic groups and socioeconomic settings, resulting in major differences in prevalence between the groups. As a result of this long standing and close host-parasite relationship, many - probably thousands - of genetically different strains of CMV have evolved and now circulate in the general population ***(Stango et al, 1989)***.

CMV shares with other herpes viruses the unique capacity to remain latent in tissues after recovery of the host from an acute infection so that "once infected always infected" as CMV is frequently already in hosts waiting to be activated when they become immunosuppressed but immunosuppression alone doesn't explain all aspects of CMV disease. The difference between primary and secondary infections should be clearly understood. The first occurs in the seronegative immunologic "virgin",

while secondary infection represents activation of latent infection or reinfection or a seropositive "immune" person ***(Ho, 1990)***.

Most people develop antibody to CMV following unrecognized infection acquired during childhood or the young adult years. A small proportion of normal persons may have a form of infectious mononucleosis or possibly symptoms of a respiratory illness with CMV infection, but clinical disease is much more likely to be evident in those who are immunologically deficient ***(Gold and Nankervis, 1991)***

It is the most frequent cause of human congenital viral infection resulting in fetal death, still birth, developmental abnormalities and pathologic lesions in the CNS and liver ***(Baskar et al., 1993)***.

CMV in uterine cervix is not only a potential source of venereal transmission to a sexual partner but also to a neonate during passage through birth canal ***(Stango et al., 1975)***.

Several studies have reported the association of a CMV infection and the subsequent development of AIDS ***(Detels et al., 1994)***.

Its infection result in a characteristic cytopathology of greatly enlarged "cytomegalic cells" containing intranuclear and cytoplasmic inclusions. The old terminology of "Salivary gland virus" stems from the frequency which pathognomonic cytomegalic cells were detected by pathologists in salivary gland of infected children and animals ***(Stango et al., 1989)***.