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# Active cytomegalovirus infection in patients with atopic dermatitis

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**Atopic dermatitis (AD) is a complex immunologic skin disorder that is expressed when genetically predisposed individuals are exposed to certain environmental stimuli. Inspite of the high prevalence of cytomegalovirus (CMV) infection and its potent immunomodulatory activities, the relation of CMV to AD is still poorly understood and is still to be clarified. The aim of the present study was to evaluate the frequency of active CMV infection in patients with AD and its possible etiologic role in the pathogenesis of the disease. Also, we tried to find if a relation between active CMV infection and disease severity exists. The present study was carried on 31 patients with AD with various degrees of disease severity. Ten apparently healthy subjects were enrolled in the study as a control group. Anti CMV IgG antibodies were estimated by quantitative enzyme immunoassay to discriminate between recent CMV infection and CMV reactivation. Active CMV infection was diagnosed by using nested PCR to detect CMV DNA in the sera of the studied subjects. The detection rate of CMV genome was higher in patients with AD in comparison to the control group. Cytomegalovirus genome was detected in the sera of 52% (16/31) of patients with AD (87.5% of them were seropositive for anti-CMV IgG antibodies). On the other hand no CMV DNA was detected in any of the serum samples of the control subjects. The difference was statistically significant. No significant relation was found between active CMV infection and disease severity. Also, no significant statistical difference was found between the two studied groups as regards the prevalence of latent CMV infection. In addition, no significant difference was detected between anti-CMV IgG antibody levels in all seropositive subjects. Our results denote that active subclinical CMV infection is more frequent in patients with AD and may have possible immunomodulatory role in the etiopathogenesis of AD but it is not related to disease severity.**