

SEROPREVALENCE OF LATENT CYTOMEGALOVIRUS INFECTION AMONG ELDERLY THAIS

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Abstract. We determined the seroprevalence of latent cytomegalovirus (CMV) infection among young and elderly adults to test for a change in seroprevalence with increasing age. Thirty-two young and 32 elderly adults were tested for anti-CMV IgG, T-cell subgroup analysis, mental status and daily life activity. There was no significant difference in the seroprevalence of CMV infection between the two groups (59.4% *vs* 50.0%; $p=0.616$). The subgroup analysis of T-cells showed significantly lower percentages of CD3 ($64.5\pm9.5\%$ *vs* $69.0\pm4.5\%$; $p=0.019$) and CD8 ($20.6\pm7.3\%$ *vs* $28.3\pm6\%$; $p<0.001$), and a higher percentage of CD4 ($42.2\pm7.5\%$ *vs* $36.5\pm4.7\%$; $p=0.001$) cells in the elderly group. No differences in T-cell subgroups were observed by CMV serostatus subgroup among the young and elderly adult groups. Among the elderly there was a significantly lower mental status examination score among CMV positive subjects than CMV negative subjects (27.7 and 28.8 respectively, $p=0.049$), but no difference in the advanced daily life activity index between the two groups. These results suggest the prevalence of CMV infection in elderly Thais does not increase with age and is not associated with immune status; however, the presence of latent CMV infection in the elderly may be associated with a decline in mental status, but not the inability to carry out activities of daily living. Further studies with large number of patients are needed to explore these findings.

Keywords: cytomegalovirus, seroprevalence, T-cell, cytomegalovirus latent infection

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