

COMPARISON OF ANTIBODY-DEPENDENT CELLULAR CYTOTOXICITY ACTIVITY ELICITED IN RECENT AND CHRONIC HIV-1-INFECTED THAI INDIVIDUALS

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Abstract. Subsequent to the establishment of human immunodeficiency virus type 1 (HIV-1) infection, host immune responses including humoral and cellular responses against HIV-1 are induced and maintained throughout disease progression. Antibody-dependent cellular cytotoxicity (ADCC) response plays a key role in protecting vaccinees from HIV-1 infection in the Thai RV144 vaccine trial. In addition, anti-HIV-1 ADCC response is involved in controlling and slowing disease progression. However, the level of ADCC response in the course of disease progression especially in recent HIV-1 infection is poorly understood. The study compared levels of anti-HIV-1 ADCC activities between serum samples derived from recent and chronic HIV-1-infected individuals in Thailand using peripheral blood mononuclear cells as effector cells and HIV-1-infected CEM.NK^R CCR5+ cells as target cells. Distribution of ADCC activities do not differ significantly between both groups. Anti-HIV-1 ADCC activity was induced in a limited number of recent and chronic HIV-1-infected individuals. However, induction ratio of ADCC activity is not significantly related to the course of disease progression. These results provide additional information on ADCC responses during the course of HIV-1 infection, recent and chronic.

Keywords: antibody-dependent cellular cytotoxicity, chronic HIV-1 infection, recent HIV-1 infection, Thailand

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