

Poster presentation

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Lymphoproliferative responses to HIV-1 Gag p24 antigen and mitogens in HIV-1 subtype CRF01_AE infected Thai patients and HIV-1 seronegative donors

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from 2006 International Meeting of The Institute of Human Virology
Baltimore, USA. 17–21 November, 2006

Published: 21 December 2006

Retrovirology 2006, **3**(Suppl 1):P13 doi:10.1186/1742-4690-3-S1-P13

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Background

Lymphocyte proliferation assay has been the standard assay to assess CD4+ T cell function. To determine lymphoproliferative responses (LPR) to HIV-1 p24 and mitogens of PBMC from HIV-1 subtype CRF01_AE infected Thai patients compared with PBMC from HIV-1 seronegative donors.

Methods

Frozen PBMC from 8 HIV-1 infected Thai patients and 8 HIV-seronegative donors were tested and compared for LPR to multiple concentrations of HIV-1 p24 antigen, phytohemagglutinin (PHA), and pokeweed mitogen (PWM). HIV-1 infected patients were grouped by the presence of CD4+ counts > 350 [mean = 483.5 cell/mm³, n = 2 (group A)] or CD4+ counts < 350 [median = 75.5 cells/mm³, n = 6 (group B)]. A stimulation index > 5 was considered a positive LPR.

Results

Both HIV-1 infected patients and HIV-seronegative donors Thai demonstrated positive LPR to PHA and PWM (8/8, 100%). LPR to HIV-1 p24 were seen only patients in group A (100%, 2/2), not in group B (0%, 0/6). This difference was significant (Chi-square test = 11.0, p = 0.0357).

Conclusion

This result suggests that CD4+ T cells in HIV-1 subtype CRF01_AE infected Thai patients with CD4+ counts >350 cells/mm³ have ability to proliferate in response to HIV-1 p24 and indicate they remained the good CD4+ T cell function.