

SERUM LEVELS OF MIP-1 BETA AND RANTES IN HIV-1 SUBTYPE CRF01_AE (E) INFECTED PATIENTS WITH DIFFERENT RATES OF DISEASE PROGRESSION

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ABSTRACT

Background: The β -chemokines have been shown to inhibit HIV replication in vitro. To evaluate role of serum β -chemokines in disease progression and their anti-viral role in vivo, we studied serum levels of MIP-1 β and RANTES in HIV-1 subtype CRF01_AE (E) infected Thai patients with different rate of disease progression.

Methods: Serum levels of MIP-1 beta and RANTES were determined in twenty HIV-1 subtype CRF01_AE (E) infected Thais. Nine progressors (PRs; follow-up CD4+ cell count <200/mm³ and progression to AIDS or death) and eleven slower progressors (SPs; asymptomatic and/or follow-up CD4+ >350/mm³ at the end of follow-up) were studied and serum beta chemokine levels were compared with plasma viral load; subjects with initial CD4 values of >350 cells/mm³ were followed at least 36 months.

Results: In this longitudinal study, serum levels of MIP-1 β and RANTES in specimens obtained either early or later in the course of HIV infection did not differ significantly between progressors and slower progressors ($p > 0.05$). There was no significant change in serum MIP-1 β and RANTES levels over time in either patient group ($p > 0.05$). No significant association was observed between plasma viral load and the measured β -chemokines ($r = -0.205$, $p = 0.21$ for MIP-1 β and $r = -0.12$, $p = 0.492$ for RANTES).

Conclusions: These results are consistent with the findings of a number of studies in HIV-1 subtype B which suggested that these chemokines do not play a major systemic role in control of viremia or protection against the progression of HIV disease. However, β -chemokines may contribute locally to control HIV in lymph nodes or other organs.

Source: 1) MedGenMed, 2004 Jul 11;6(3): A10565

2) 15th International AIDS Conference, Bangkok, Thailand, July 11-16, 2004 [Abstract number A10565)

3) Pre-Congress "New Trend in Laboratory Medicine", Phramongkutkloa Hospital, Bangkok, Thailand, Nov 22, 2004 (Abstract number P7, Poster Presentation)