Retrovirology

BioMed Central

Poster presentation

The effects of highly active antiretroviral therapy (HAART) of stavudine, lamivudine and nevirapine on the CD4 lymphocyte count of HIV-infected Africans: the Nigerian experience

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from Frontiers of Retrovirology: Complex retroviruses, retroelements and their hosts
Montpellier, France. 21-23 September 2009

Published: 24 September 2009

Retrovirology 2009, **6**(Suppl 2):P66 doi:10.1186/1742-4690-6-S2-P66

This abstract is available from: http://www.retrovirology.com/content/6/S2/P66

Objectives

The objective of this study was to investigate the short-term effect of highly active antiretroviral therapy on the CD4 lymphocyte count of HIV-infected Nigerians.

Setting

This study was carried out at the Haematology Department of the University of Port Harcourt Teaching Hospital a 500 bed tertiary hospital and one of the designated antiretroviral therapy pilot centres.

Methods

A case control study of 70 HIV-infected subjects placed on highly active antiretroviral therapy. Thirty HIV-infected yet to start therapy due to unaffordability were observed as controls. CD4 lymphocyte count was determined at baseline for subjects and controls. Subjects were placed on HAART for 12 weeks while controls that were yet to start therapy were monitored as controls. CD4 lymphocyte count was repeated after 12 weeks and the differences compared statistically.

Results

We observed that subjects and control patients did not differ significantly in their CD4 lymphocyte count at baseline ($p > 0.05$), but after 12 weeks HAART in subjects, there was a mean increase in CD4 count of (39 cells/μl) in subjects, while untreated controls showed a mean decline of (12 cells/μl) $p < 0.05$. There was a statistically significant variation in the therapy dependent increases in CD4 count of HAART treated subjects based on pre-therapeutic baseline CD4 count ($\chi^2 = 180.39$, $p < 0.05$). The HAART dependent increase in CD4 counts was higher in younger subjects 19-28 years (31 cells/μl) compared to older subjects 49-58 years (21 cells/μl) ($p = 0.01$). Similarly CD4 response was found higher in females compared to males ($p = 0.01$).

Conclusion

This study indicates the importance of accessing the CD4 lymphocyte count of HIV infected patients before the initiation of HAART, its use as a prognostic maker in predicting the initial response to HAART and in determining the optimal time to initiate therapy.