

Poster presentation

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Haematological measurements and iron levels in HIV-infected Gambian subjects

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Background

The aim of this study was to determine if HIV status influences changes in iron levels and anaemic measurements and to relate these to progression of disease as judged by CD4+ T cell lymphocyte counts.

Methods

150 HIV positive Gambian adults aged between 18 to 62 years that are enrolled in the MRC clinical cohort were assessed for CD4+ T cell lymphocyte count, haemoglobin (Hb), mean cell volume (MCV), red cell distribution width (RDW), erythrocyte sedimentation rate (ESR), serum iron and serum ferritin.

Results

Anaemia was not found in the healthy HIV negative controls. There was however, significant higher proportion of anaemic subjects with low CD4 count < 200 cells/ μ l compared with other categories of subjects in both infections (44% for HIV-1 [$p = 0.03$] and 56% for HIV-2 [$p = 0.003$]). Serum iron levels were normal in all healthy control subjects and of higher levels than in both HIV infections. The proportion of individuals with less than normal serum ferritin values was higher in each of the categories of CD4 T cell counts in HIV-1 than in HIV-2 infection but was not statistically significant. Unlike serum iron level, no association was found between Hb, RDW and ferritin with CD4 counts in both HIV-1 and HIV-2 infection.

Conclusion

Anaemia is common in HIV-1 and HIV-2 infections when CD4 T cells declined to < 200 cells/ μ l but higher serum iron level is found in asymptomatic HIV-2 infection.