

Prevalence of anemia before and after the initiation of antiretroviral therapy at art centre of hawassa university Referral Hospital, Hawassa, Ethiopia

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Ethiopia has experienced a rapid expansion in access to antiretroviral therapy (ART) for HIV infected patients. HIV associated anemia is always overseen and it could be a challenge for prognosis of patients who are taking ART. The prevalence of anemia due to HIV at the early stage of infection is more prevalent than in the late stage. Knowing the impact of HIV on the haematopotosis of HIV infected patients is very essential for the management and care of people living with HIV/AIDS. HIV related anemia decreases the quality of life and survival rate of HIV patients.

Method: We conducted a cross-sectional analysis of Hospital based retrospective study using a Hospital secondary data. A total of 384 adult (≥ 15 years) patients with complete information of CD4 cell count, Hemoglobin level, Hematocrit level and Red blood cell count were used from the registration book starting from 2005 to 2010. The measurement of Hemoglobin, CD4+ T cell, Hematocrit and RBC count was measured using standard methodology at baseline and after 6 months of antiretroviral therapy (ART). Paired t-test was used to assess mean differences for hemoglobin and CD4+ T cell count before and after ART initiation.

Objective: The aim of this study was to determine prevalence of HIV associated anemia before and after initiation of antiretroviral therapy (ART) in HIV infected adults.

Results: Of the 384 study subjects 90(23.4%) were anemic before ART. However, the prevalence of anemia after ART 46(12.0%) was significantly decreased ($p < 0.05$). The prevalence of anemia was higher in females than in males at base line (77.8% vs. 22.2%) ($p = 0.017$), and after ART treatment (65.2% vs. 34.8%) ($p = 0.000$).

Conclusions: There was a decline in the prevalence of anemia and increment of mean CD4+ T cell count among HIV infected patients after ART. However, a number of HIV/AIDS patients had still anemia and their CD4+ T cell count is not improved. Thus, there should be a large scale and longitudinal study for further characterization of HIV related anemia.

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