

## Title: The study of malaria and HIV/AIDS co-infection effect on red blood cell indices and its relation with the CD4 level of patients on HAART in bench sheko zone, south west Ethiopia

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**Background:** Malaria and HIV/AIDS are the commonest infections in sub Saharan Africa (SSA) and worldwide. HIV infected individuals in malaria endemic areas experience severe malaria. Hematologic abnormalities such as anemia in malaria and HIV co infected (MHC) patients were inconsistent.

**Objective:** This study aimed to compare RBC indices and anemia in HIV patients' co infected with malaria and those HIV patients without malaria.

**Methods:** A comparative cross-sectional study was employed on 206 patients on HAART in Bench Maji Zone. Blood samples were collected from both groups for laboratory test. Data was entered in Epi-data and exported to SPSS version 21 for analysis.

**Results:** There were significant differences in Mean $\pm$ SD of RBC indices between the two groups and RBC, Hgb, HCT and MCV were lower in MHC patients. There was positive correlation between CD4 count with MCV, MCH and anemia totally. Overall anemia prevalence was 45.1%. Anemia in MHC was 63.4 %, 61.3 % in female and 55.9% in patients with CD4 count of  $\leq$ 500. Anemia in MHC patients was higher in those with CD4 count of  $\leq$ 500. There is significant difference in anemia in both groups with different CD4 group ( $P\leq 0.01$ ).

**Conclusion:** There was a difference in RBC indices in both groups. The prevalence of anemia was higher and anemia in MHC was greater than OH infected patients.

### Biography

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