Prevalence of thrombocytopenia among HIV infected patients initiating ART at Dessie Referral Hospital, Northeast Ethiopia

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Abstract

Background: Acquired Immunodeficiency Syndrome (AIDS) is an immunological disorder caused by the human immunodeficiency virus (HIV) infecting of cells followed by impairing the function of cells of the immune system, which in turn leads to the occurrence of opportunistic infections and development of malignancies and/ or tumors. This study aimed to determine the prevalence of thrombocytopenia and to assess associated factors among HIV-infected patients attending the ART clinic of Dessie Referral Hospital, Northeastern Ethiopia.

Methods: This is a hospital-based cross-sectional study conducted among HAART naïve HIV-infected patients at ART clinic of Dessie Referral Hospital, Northeastern Ethiopia, from July to December 2018. Data entry and analysis were done using the SPSS version20. Descriptive statistics were used to summarize variables. Multivariate logistic regression analysis (backward stepwise) was conducted. Then, the corresponding adjusted odds ratios (AOR) and 95% confidence intervals (CI) were used to identify factors independently associated with thrombocytopenia. $P < 0.05$ was used to indicate statistical significance.

Results: From the total of 317 HIV-infected patients involved in the study; 177 (55.8%) were females and 140(44.2%) were males. The mean Platelet level of the study participants was $234.2 \pm 104.6 \times 10^3$ cells/mm^3 and the mean CD4 count was 238.6±203.5 cells/mm^3. The overall prevalence of thrombocytopenia was 58(18.3%). From the total thrombocytopenic HIV-infected study subjects, 67.2%, 29.3%, and 3.5% had mild, moderate, and severe thrombocytopenia respectively. The overall immune suppression (CD4 count < 500 cells/mm^3) was 282(89%).

Conclusions: The overall prevalence of thrombocytopenia was higher than the previous similar studies of Ethiopia, and significantly determined by older age and CD4 counts lower than 200cells/mm^3. Therefore, routine assessment of hematological parameters is crucial for immediate management of the disease to improve the quality of life as well as to reduce the risk of mortality of HIV-infected patients.

Photograph



Biography

I am Alemu Gedefie from Wollo University, Ethiopia. I am a Senior Medical Laboratory expert in medical microbiology & parasitology. Currently, I am a lecturer in Medical Microbiology and I have been experienced in research, evaluation, teaching and administration both in health facilities and educational institutions. Most of my researches are focused on infectious diseases with a special concern on HIV patients to improve the quality of life of these debilitated patients. I had also a certificate of excellence in reviewing from International STD Research & Review (Certificate No: SDI/HQ/PR/Cert/65710/ALE). Recently, I am undertaking a new comparative study entitled prevalence and associated factors of Hepatitis B and C virus infection among HIV positive and HIV negative TB patients.

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