Reviewer's report

Title: Determination of Hematological parameters among HIV positive patients taking HAART and HAART naïve in ART clinic of Gondar University Hospital, Gondar, Northwest Ethiopia: Comparative cross-sectional study

Version: 2
Date: 30 October 2013
Reviewer: Romanee Chaiwarith

Reviewer's report:

The authors conducted the study plan to determine hematological parameters among HIV infected patients taking cART and cART naïve in Northwest Ethiopia. There are existing data regarding hematological abnormalities among HIV-infected worldwide. However, the authors would like to fill the gap of lacking the data in Ethiopia.

Major Compulsory Revisions

1. Methods
   1.1 There are 9000 people living with HIV and receiving care at the clinic, why were there only 290 patients included in the study? Did the authors do the sample size calculation? And how did the author sampling 290 patients from 9000 people?
   1.2 Why did the authors exclude only patients on medication i.e. vitamin supplements and tuberculosis from the studies? How about patients taking co-trimoxazole or other medications for opportunistic infections particularly prophylaxis, as these medications particularly co-trimoxazole had an effect on hematologic abnormalities?
   1.3 Statistical analysis: Are all continuous data normally distributed? The authors stated that independent T test was used to compare means of each hematologic parameter. If the data are not normally distributed, did the authors still use independent T test?

2. Results
   2.1 Paragraph just before table 3. The number in text in the paragraph and in table 3 are difference, please make correction.

3. Discussion
   3.1 The discussion should be revised. The discussion mainly mentioned about comparing the data from this study and the previous studies, but the authors did not explain the possibility why the results were different. Furthermore, the authors mostly re-state the results section.
   3.2 The third sentence of page 9, ......pancytopenia (0.7%) was lower than study done in India 6% in 2008 and 1.6%. The question is 1.6% for what year?

4. Conclusions
4.1 The conclusions must be revised. The authors should conclude the main findings and leave the readers take home message, NOT just re-state the result section

4.2 The authors left the sentence “Other associated factors for anemia, leucopenia, and thrombocytopenia must be addressed for the future”. However, if the authors collected those factors, it could be done in this study and did not need future studies

Minor Essential Revisions

1. Introduction

1.1 References are needed to be quoted, for examples, paragraph 3 and 4

1.2 The authors mentioned that several factors play a role in the development of anemia in patients with HIV, including chronic disease, opportunistic infections, and certain nutritional deficiencies. I think toxicities from medications also play an important role and the authors should mention about this factor.

2. Other comments

2.1 Spelling and grammar are needed to be carefully checked

2.2 All abbreviations mentioned at the first time must be spell out

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests