Author's response to reviews

Title: Profile of blood cell abnormalities among antiretroviral therapy naive HIV patients attending the Yaounde University Teaching Hospital, Cameroon

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Version: 4 Date: 22 August 2014

Author's response to reviews: see over
Dear BMC Hematology editorials,

All the comments and suggestions given by each reviewer to our manuscript entitled “Profile of blood cell abnormalities among antiretroviral therapy naïve HIV patients attending the Yaounde University Teaching Hospital, Cameroon.” are very important and valuable to make the paper scientifically sound. We the authors tried to correct and include all the comments given by each reviewer’s point-by-point.

With regards
Reviewer’s report
Title: Profile of blood cell abnormalities among antiretroviral therapy naive HIV patients attending the Yaounde University Teaching Hospital, Cameroon
Version: 3 Date: 11 August 2014
Reviewer: Carol Briggs
Reviewer’s report:
Discretionary Revision.
Shorten the discussion, too much repetition thorough out and results shown again here.

Accepted and done as per the given comment. The discussion was shortened and irrelevant results deleted.

Level of interest: An article of limited interest
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:
'I declare that I have no competing interests'
Reviewer's report
Title: Profile of blood cell abnormalities among antiretroviral therapy naive HIV patients attending the Yaounde University Teaching Hospital, Cameroon
Version: 3 Date: 16 August 2014
Reviewer: Andrew Kerkhoff
Reviewer's report:
Overall, the manuscript has greatly improved in quality and succinctness. However the discussion and conclusion are not as focused or well-organized as they could be. I am not left with a strong impression of how these results expand the literature, or what the authors feel the implications of their results are. Please focus on these points to improve the discussion/conclusion as the results clearly show that blood cytopenias of all three cell lines are strongly and directly related to severity of immunosuppression and HIV disease stage.

Abstract
Minor
- line 36: clinical examination (was done)

Accepted and done as per the given comment

- line 42: consider, patients with lower CD4 counts and advanced clinical stages had a greater occurrence of blood cytopenias. (don’t write significantly, this is implied by your p-value)

Accepted and done as per the given comment

- line 46: write lower CD4, or with advanced immunosuppression… immunological classes is not a universally described term.

Accepted and done as per the given comment

- line 47: thus, although all HIV patients…

Accepted and done as per the given comment

Background:
-Line 73: the relationship between anaemia and mortality has been shown in dozens of papers. You should include additional references from developed and developing settings… suggested additional references:

Accepted and done as per the given comment

-line 77: how do peripheral blood cell abnormalities affect treatment? You need to explain this.

Accepted and done as per the given comment; included in the submission that arv regimens with zidovudine would not be administered to HIV patients with severe anemia or pancytopenia.

-line 78: done among not done on.

Accepted and done as per the given comment

-line 83: and by CD4 counts (immunological classes well known). Could keep as is and put CD4 counts in parentheses.

Accepted and done as per the given comment

Methods:
-line 106/107 expressed as proportions or percentages and were as categorical variables.

Accepted and done as per the given comment


Accepted and done as per the given comment

-consider moving the ethics section to below line 91. It does not usually follow data analysis.
Accepted and done as per the given comment

-line 101: how were qualitative abnormalities determined? Were these automated or done by a pathologist. This definitely needs to be described.

Accepted and done as per the given comment. Included in the text that the blood films were read by a pathologist. The author just finished training as a clinical biologist. The study was done during the end of course thesis and the slides were reviewed by his supervisors before his public defense.

Results:
Overall you need to explain your findings better...they are poorly articulated. Tables 4 and 5 both show that anaemia, leukopenia and thrombocytopenia are all strongly and directly related to CD4 cell counts and WHO disease stage, where the lowest prevalence of blood cytopenias is among those with stage 1/ CD4>500 and the highest prevalence of all three cytopenias is among those with severe immunosuppression and stage 4 disease. With the exception of leukopenias by WHO disease stage, these all demonstrate beautiful graded associations.

Accepted and done as per the given comment

-line 150-152 and 154-156: It is not necessary to describe p-values. It breaks up the flow of reading and is awkward. Also a p-value is not generally written as p=0.000 it should instead be written as p<0.001. Describe the trends and reference the table or say (p<0.05 for all)

Accepted and done as per the given comment

Discussion
-In general, the discussion section still repeats much of the results without giving much information on how the results expand the literature or what the implications of the results might be...Should all anemic patients in endemic areas be screened for HIV? Should all HIV+ patients get an FBC at diagnosis? How will this impact care? Do some require more frequent follow up given their high risk of death? Should they be considered for earlier ART initiation? Do you propose any future studies that may build upon this work?

Accepted and done as per the given comment. The discussion has been reoriented and shortened.
- Also, the discussion does not appear to be well organized and gives the sense of jumping around a lot. Consider if there is a more logical way to organize this section.

  Accepted and done as per the given comment

- There is still no discussion of strengths of this paper and weaknesses is a long run on sentence that is not well-written.

  Accepted and done as per the given comment. This paragraph has been re-written.

Minor:
- Lines 178-180: this is not an adequate explanation for poor bone marrow response… it’s largely an upregulation of cytokines in response to HIV infection which causes dysregulated hematopoiesis… HIV may also directly infect bone marrow progenitor cells but this is controversial. If it chronic infections, which ones? TB may directly invade the BM causing granulomas or fibrosis, but its main effect on BM is also thought to be BM driven. MAI may infect the BM etc.… be more specific…

  Accepted and done as per the given comment

- line 191: to say chronic infections as most would interpret this to mean anaemia of chronic infection which only rarely may cause a microctytic anaemia. If you mean parasitic infections then simply say so

  Accepted and done as per the given comment

Conclusion
General/major
- you mention that health regulators should provide blood counters that count reticulocytes, but why? This is the first time in the paper you mention this. Does knowing a reticulocyte in your setting change patient management? If so, how? Put this is in the discussion section!

  Accepted and done as per the given comment. This has been added in the discussion.

Minor
- 231: the most common.
  Accepted and done as per the given comment

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:
I declare that I have no competing interests