Reviewer’s report

Title: A comparative cross-sectional study of some hematological parameters of hypertensive and normotensive individuals at the university of Gondar hospital, Northwest Ethiopia

Version: 1 Date: 20 Sep 2017

Reviewer: Yuji Shimizu

Reviewer's report:
This author conducted a hospital based cross-sectional study of 126 hypertensive subjects and 126 normotensive subjects. And this author found that the median values of WBC, RBC, Hgb, HCT, HCV and the mean values of MCHC, RDW, MPV and PDW were significantly higher in hypertensive group compared to apparently healthy normotensive groups. Additionally, WBC, RBC, Hgb, HCT and Plt showed statistically significant positive correlation with blood pressure indices.

As a reviewer, I checked this manuscript and found many critical point that could not ignored. I commented bellow.

1) Definition of hypertension should be clarified. And the influence of the antihypertensive medication on present results should be discussed.

2) Since this study compared the hematological parameter between hypertensive group and normotensive group, subjects who are taking medication for anemia also should be excluded from study population.

3) This author describes in abstract that hypertension has impact on hematological parameters. However, no adjusted analysis was performed in present study. Therefore, this author could not conclude as mentioned above. Same hypertension related cardiovascular risk factor might influenced on hematological parameters. In that case, same factor which might influenced on hypertension also might influenced on hematological parameter.
4) This author concluded that hematological parameter can be used to monitor the progress of the disease and manage hypertensive related complications. However, present study never shows the impact of hematological parameter on hypertensive related complications. And never shows the progress of disease that needs follow-up study. Furthermore, since present analysis never evaluated by use of multiple-adjusted manner, hematological parameter values could be less informative than sex, age, smoking status, alcohol consumption and BMI those factor are less invasive data than that of hematological parameter estimate.

5) Since classical cardiovascular risk factor might influenced both on hematological parameter and blood pressure level strongly, the analysis should be performed with those factors and discussion also included the influence of those classical cardiovascular risk factors.

6) This author evaluated the simple correlation coefficient between blood pressure and hematological parameters in Table 3. However, to evaluate those correlations, following matters should be clarified.

6-1) Is this analysis performed only among subjects without taking antihypertensive medication use? The influence of anti-hypertensive medication should be taken into consideration.
6-2) Are all of those correlations keeps linear associations?
6-3) At least classical cardiovascular risk factor adjusted analysis is mandatory.

7) There might be a significant gender difference prevalence of current drinker and current smoker. And smoking status and drinking status should be associated with hematological parameters and classical cardiovascular risk factors. Sex-specific analysis on present analysis should be mandatory.

**Are the methods appropriate and well described?**

If not, please specify what is required in your comments to the authors.

No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:
Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.
I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal