Reviewer's report

Title: Significantly elevated foetal haemoglobin levels in individuals with Glucose 6-phosphate dehydrogenase disease and/or sickle cell trait: a cross-sectional study in Cape Coast, Ghana

Version: 0 Date: 12 May 2017

Reviewer: Amel Renaud BIDIAS

Reviewer's report:

My feedback on the background (Have you explain the gap of knowledge addressed and the aim of the work):

To provide more specifics you could indicate in the Background which drugs cause G6PD and/or haemoglobin deficiency and how those drugs are represented in your cohort.

My feedback on the methods (Is there sufficient detail provided on the methodology):

Just to add more depth to the Methods, would it be possible to include more information on the types of participants in this cohort (pregnant women, those taking drugs causing G6PD and/or haemoglobin deficiency… were they included)?

In the Conclusion you comment on sex being a factor in %Hb F levels. Could you give more detail in the methods about male/female distribution in your cohort?

Can you define the different groups that you include in the results (Tables)?

Did you used the logistic regression for enabling you to verify the existence or not of risk factors between quantitative variables? Can you provide additional data about what variables are included in the logistic regression?

Since you discuss it in the Results could you discuss the groups you are referring to?

My feedback on the results (Are the main results clearly laid out):
In general the results are very interesting, but could benefit from a little more detail.

It is a little unclear if your G6PD status and haemoglobin variants and which groups correlate with which other (if applicable).

My feedback on the conclusions (Does it relate to the aim of the work and is the implication of the work clear?):

I think the conclusions section does a nice job of indicating how your findings should be applied going forward, but since you clearly demonstrate G6PD enzymopathy to be associated with elevated %Hb F levels, maybe more mention could be given about what factors may should be considered in the management of the patients.

How do you think that %Hb F levels would help in the monitoring or treatment of patients with G6PD enzymopathy and SCT? I think that the conclusions will depend on the results of your logistic regression - if there are covariates that are associated with particular haemoglobin variants (for instance, gender, age, drugs), that would be a major conclusion.

**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.

Yes

**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 recommend additional statistical review
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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