



SDI Review Form 1.6

Journal Name:	Annual Research & Review in Biology
Manuscript Number:	Ms_ARRB_57305
Title of the Manuscript:	Possible Impact of Select Trace Mineral Deficiency in HIV Seropositive Pregnant Women with/without Malaria co- infection in NAUTH, Nnewi, Nigeria
Type of the Article	<i>Original Research Article</i>

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>Despite this being an extremely relevant topic, the manuscript deserves several adjustments; English language correction is required; references must be cited in all sentences that come from previous knowledge; nowhere in the text were the abbreviations BMI, DBP and SBP explained; and, some additional information of the studied population needs to be incorporated in the text.</p>	
Minor REVISION comments	<p><i>ABSTRACT:</i></p> <ul style="list-style-type: none"> - BMI was significantly decreased while DBP and SBP (please explain these abbreviations) <p><i>MATERIAL AND METHODS:</i></p> <ul style="list-style-type: none"> - 1) Why all HIV seropositive pregnant women were yet to commence anti-retroviral therapy (naive)? Were they newly diagnosed? - 2) What was the gestational trimester they were in? Because, at each stage of pregnancy, the inflammatory profile changes and, perhaps, oxidative stress and micronutrients as well. - 3) Were the patients submitted to any malaria medication? - 4) Were the pregnant women not taking vitamin supplements, e.g., omega 3, multivitamins, folic acid, etc.? - 5) In the methodology was missing that anthropometric measurements would be evaluated (blood pressure and weight / height). <p><i>RESULTS:</i></p> <ul style="list-style-type: none"> - 6) The title of this section is only "results", not "results and discussion". - 7) The tables would be clearer if the statistical differences between the means were represented by symbols, instead of describing each p value in the final lines of the table; for example, a symbol can mark the average that is different from the others, and the respective p-values can be described in the legend. - 8) Moreover, as the table has to be self-explanatory, performed statistical tests and all abbreviations should be explained in the legend. - 9) The title of the sections 3.1 and 3.2 could be changed by: 3.1 Anthropometric data and 3.2 Serum zinc, selenium and magnesium levels. <p><i>DISCUSSION:</i></p> <ul style="list-style-type: none"> - 10) References are missing, to follow sentences: - "Malaria infection seems to accelerate the degree of reduction in micronutrients status during pregnancy. This condition can be worsened by combined effects of HIV infection [REF]." - "The significant drop in trace element status of HIV seropositive participants with malaria co-infection may be a determinant in ascertaining factors that predisposes or determines severity of the disease in malaria endemic area [REF]." - "During pregnancy, a lot of stress is experienced physiologically and pathologically. The physiological stress is due to changes resulting from increased demands for nutrients, and changes in plasma volume [REF]. These increased demands eventually lead to decrease in micronutrients. Lower selenium levels may likely increase fetal mortality risk [REF]." - "The significant increase in selenium level in parasitemic pregnant women may be due to increased mobilization of this element to fight inflammation caused by parasites' invasion [REF]" 	



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	<ul style="list-style-type: none"> - “Variations in the concentration of Mg may be caused by <i>P. falciparum</i> malaria, malnutrition as well as malabsorption [REF].” - “Loss of fat mass due to infection during pregnancy might represent a decrease in available substrate for fetal growth [REF].” - “Oxidative stress has emerged in recent years as a suspected component in the pathogenesis of HIV disease. Research has shown that even in the earliest stages of infection, a deleterious reductive-oxidative (redox) imbalance may occur [REF].” - “All these conditions generate enormous oxidative stress especially in pregnancy vis-avis HIV/malaria co-infection [REF].” - 11) In both sentences, the authors suggest several studies, but mention only one: “The finding was in agreement with previous reports [9]; and: “Various studies in Nigeria have shown that there is a high prevalence of malaria parasitemia among HIV infected individuals [12].” - At the end of the first paragraph, I suggest commenting on other changes seen in pregnant women, such as “<i>Interesting data found is that, in these HIV-infected women, independent of pregnancy and therapy time, the sCD14 levels were lower than in non-pregnant under ART for further five years, what may suggest that, or the time of ART use could alter translocation levels, or pregnant women indeed develop a protective profile for microbial translocation, factor that may present important role on the mothers and newborns health</i>”. (MANFIO et al., 2018, AIDS Research and Human Retroviruses - HIV-Infected Pregnant Women: A Microbial Translocation and Inflammatory Status Discussion) - This sentence is meaningless: “This is in line with study by (Cosby <i>et al.</i> [5]” - This study is <u>not recent</u>: “Recent study has also reported decreased adverse pregnant complications with magnesium supplementation [17].” - Infection with the human immunodeficiency virus <u>type (1?)</u> in pregnant women... - Authors should write a paragraph of study limitations at the end of the discussion, including, for example, lack of analysis of the participants' food profile, since the concentration of these nutrients is directly associated with food habits; time of HIV infection/diagnosis, and viral load + CD4 T count, as all these points can also be crucial for nutrient reduction, etc. 	
Optional/General comments	n.d.	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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