



SDI Review Form 1.6

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2014_IJBcRR_10256
Title of the Manuscript:	Assessment of blood iron, manganese and Cu/Zn ratio in the course of falciparum malaria among ivoirian people (Côte d'Ivoire)
Type of the Article	

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:

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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	The style of writing needs improvement—sentences should be written in 3rd person and should be grammatically correct. See some of the corrections under minor revision section. Introduction: literature review is inadequate. The paragraph in line 52-59 did not adequately highlight the effect of Fe, Zn, Cu and Mn on Malaria and vice versa. The findings of some studies (eg reference 3, 23 as quoted) were not specifically mentioned and reviewed. Methodology: 1. The study design and sampling technique were not stated. For example, how were the 3 health centres of Abobo East district selected? 2. Exclusion criteria for the study needs to be clearly define. The statement in line 78 “subjects not having at least one of these criteria were excluded from the study” is vague. It seems to suggest that a patient could be recruited for the study even if he satisfies only one of the inclusion criteria. 3. It was stated as part of the inclusion criteria that a patient should be ‘fasted’ (see line 78). Why should a person be fasted? If this is indeed necessary, then for how long before sample collection? Results: Tables’ title and format of presentation should be improved to ensure clarity. See some suggestions under minor revision comments.	Methodology: 3- Trace elements studied are come essentially from food; So a post-prandial determination of these trace elements might abnormally elevate the serum titers of these oligo elements.



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	Discussion: The author should be more focussed in his/her discussion. What should be discussed are findings of the study, their similarities and differences with other studies, and possible reasons for the observed study findings. Line 158: "this study justifies also, the advantages associated with nutritional supplementation during treatment of malaria---" is out of focus since the study did not assess the effect of micronutrient supplementation in relation to malaria. Line 160-161: It may not be correct to say that the study result had 'confirmed' that oxidative stress is involved in the pathophysiology of malaria. This is because the study did not find statistically significant difference in oxidative stress between infected patients and controls as stated in line 130-131. Conclusion: Like discussion, the conclusion and recommendations should be made based on the result findings only. The conclusion in line 175-177 regarding 'risk of nutritional intake and malaria' is not valid, as this was not assessed by the study (see also abstract, line 25-27). Similarly, the recommendation in line 183-185 is not within the scope of the study. These should be modified or deleted.	
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Minor REVISION comments	TITLE: 'Assessment of blood iron-----' should be changed to 'Assessment of serum Iron-----' ABSTRACT: the clarity and grammatical style need to be improved. Line 6: 'The question of interaction malaria-endemic and nutritional -----' should read as: "The question of interaction between malaria infection and nutritional----" Line 8: "---host include some trace elements that are also essential for malaria parasite." Line 9: 'Their evaluation in blood is primordial for improve the treatment' The sentence is grammatically wrong. Please correct or delete. Line 12: Design and method. This section is not well written. The sentence 'For this purpose, we determine---- ---.' should be written in 3rd person. I suggest the whole section should be reorganized as follows: "The study was conducted between January and June, 2013 among 61 malaria infected subjects and 57 uninfected controls (aged 8months to 45 years], who were previously evaluated about their dietary habits during diagnosis by thick and thin blood smear. For each patient, serum titres of Fe, Zn, Cu and Mn were determined using atomic absorption spectrometry followed by determination of Cu/Zn ratio which is an indicator of oxidative stress." Result: Please reorganize Line 17: 'Iron titre was of 0.75+ 0.1mg/L in infected against 0.94 + 0.09mg/L in controls' CORRECT as: " Mean Iron titre was 0.75± 0.1mg/L in malaria infected patients compared to 0.94 ± 0.09mg/L in controls". Conclusion: did not completely reflect the study results.	
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	Key words: replace the word ‘blood’ with ‘serum’ Introduction: Line 39: ‘The resistance----result of bad observance to---‘ ‘The resistance-----result of poor compliance to--‘ Line 42: “The most vulnerable are children old to less five years and pregnant women” should read: “The most vulnerable are children less than five years and pregnant women” Line 45: “The question of interaction malaria-nutritional status of host----“ should read as: “The question of interaction between malaria and nutritional status of host----“ Line 47: “Contrariwise” change to “On the other hand” Line 53: ‘has been subject to---‘ should read: ‘‘been a subject of---‘ Line 56: “host as in parasite” should read “host and the parasite” Line 58: “may have a resistance” should read “may confer resistance” Material and methods: Line 67: ‘Abobo is one of the municipalities---‘ Line 68: ‘----1.5million inhabitants in the <u>last</u> census’ The specific year should be mentioned. Line 78: “For reasons of sample <u>representativity</u>, we selected three health centers” should read as: “To ensure representative sample, three health	
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centers were selected”

Line 76: subjects be 8months to 45 years **old**

Line 92: Serum **samples** were digested---

Result:

Line 115-118: Modify as follows

‘Mean serum iron titre of $0.75 \pm 0.10\text{mg/L}$ was obtained among subjects with malaria infection compared with $0.94 \pm 0.09\text{mg/L}$ in controls. Serum zinc, copper and manganese showed no significant variation between subjects and controls.

Line 119: According to **gender** (table 2)---

Discussion:

Line 136:

Line 145: “is accompanied **by** iron liberation----“

Line 152: “manganese observed-----result from **causes other than malaria infection such as impaired** absorption or insufficient intake”.

References:

Line 211: ----and al ?? or **et al**

Tables:

Table 2: This is not vivid. It did not display the result very clearly. You may consider this format:

	Malaria infected		Control group	
	Male	Female	Male	Female
Fe				
Zn				
Cu				
Mn				

Table 2 can be split into 2 tables with the following titles:



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	1) Mean serum trace elements variations by gender among malaria infected patients and controls in Abobo-east health district. 2) Mean serum trace elements variations by age groups among malaria infected patients and controls in Abobo-east health district Table 3: Consider modifying the tittle as follows “Mean serum titres of trace elements compared with parasite density in people from Abobo-East health district” Table 4: Ranges of Parasitemia should be arranged in increasing order as follows: Parasite density (/uL) <2000 2000-4000 >4000 The word ‘sex’ should be replaced with ‘gender’ The last column in the table with subheading ‘n (%)’ showed only percentages, but no ‘n’. It may be more informative to give corresponding p-values for each category of variables being compared (e.g oxidative stress among infected Vs Uninfected; parasite density, gender and age)	
<u>Optional/General</u> comments	The organization of the manuscript needs improvement. Sentences should be written using grammatically correct English. Discussion should be within the scope of the study and based on the study results.	