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Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2015_IJBcRR_16036
Title of the Manuscript:	TOXICOLOGICAL EVALUATION OF BEE STING IN PLASMODIUM BERGHEI INFECTED MICE
Type of the Article	Original Research 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)
<u>Compulsory</u> REVISION comments	<u>General Comments:</u> This is a very interesting paper where authors evaluated effect of bee stings on parasitized animals and using liver enzymes as biochemical parameters as the endpoints. However, there is one issue: <i>no group was allocated bee sting only</i> - meaning a group of normal rats exposed to bee stings without other interventions. The authors might want to consider this in the overall interpretation of results. Bee stings themselves are pain experiences and can induce biochemical body reactions and can affect the organ functions severity of stings. some sections of the manuscript as outlined below. Introduction (i) sufficient and relevant subject background which may include	Comment Introduction: Noted and corrected with reference 15 and 16. Discussion: Not agreed to removal of some paragraph. It is always good to give a little introduction before addressing the result in discussion section.



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	bee venom and liver enzymes and their functions (ii) the basis and purpose of the study and what was the problem that researchers trying to address (iii) explain motivation/justification for the study Discussion Suggest relocating the first two paragraphs to introduction – best suited information for introduction. Good discussion should start with line 158. The discussion needs to bring out the importance of the study and its implications. Is it consistent or in disagreement with other studies etc. It all narrative without critical analysis of study results to others in literature whether it is a first study of this type etc. An overall view statement of the findings would help kick-start the discussion. For example: <i>The findings in this study suggest that bee sting may have some biological effect on malaria infection</i> etc.	
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Minor REVISION comments	Title The title is appropriate but considering issue raised in the General comments above, the use of toxicological may need to be considered and authors might want to consider revising to such as biochemical evaluation rather than toxicological evaluation. Abstract The title is short and informative. The authors might want to consider the following comments:- In <i>Aim</i>: The first sentence is little vague needs to revised. Aims are statements of intention. In <i>Conclusion</i>: Without a group having exposed to bee sting only, the conclusion statement may seem odd or weak. Authors might want to consider revising the conclusion. Materials and Methods <i>Experimental Animal</i>: (i) may be useful also to provide weight range and not only average weight, (ii) provide clear statement on how parasitized red cells were administered. <i>Experimental Design</i>: (i) authors used methods described in reference 16 as per description or modification of the method – if later has been done in the method it should briefly described any	Title: Not agreed Aims: Corrected Conclusion: Corrected Experimental Animal: Not agreed Serum: Corrected Liver: Not agreed. 1.0g of the liver was used. Some maybe more than 1. Enzyme analysis: Activities was measured not concentration/level. Results: Not agreed. All y-axis labelling are correct because specific activities of the enzymes were measured. Each result (graph) should be self-explanation. Therefore, indicating groups under each graph is important.
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	modifications to the methods in reference 16, (ii) how long after chloroform administration were animals sacrificed – immediately or sometimes later. <i>Preparation of serum and tissue homogenate:</i> (i) was blood collected into heparinized tubes or plain tubes? For serum, blood must be allowed to stand for sometimes for serum to be formed before centrifugation under low speed, (ii) for liver, it is not clear whole liver was weighted and homogenized or portion of the liver only was used, (iii) at what temperature was homogenate stored before use? Enzyme Analysis It is not clear whether hepatic enzyme activities were measured or concentration/level of the hepatic enzymes from liver and serum sources was measured. Need clarification Results General observational comment noting would be that the sources (liver versus serum) from which enzymes concentrations were measured showed a marked difference. This observation need to be notes in Results section and/or Discussion. <i>Aspartate Transaminase (AST):</i> Figure 1 labelling on Y-axis needs revision considering issues raised above whether enzyme activities or concentrations/levels of enzymes were measured – if	
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	later Y-axis should be labelled as AST concentration (IU/L) etc and if activities were measured then it should be label differently The observation made from Figure 1 would be that a substantial increase in AST from liver homogenate in Group 3 with moderate increase in Group 2 & 4 relative to Group 5 (normal control group) and also against Group 1 was observed. Typing of letter in the graph columns to signify statistical significance should be on the top of the column not inside for clarity of viewing. To make groups identification in the Figures 1-4, insertion of refer to study design after GROUPS would be helpful. For example: in Figure 1 GROUPS (refer to study design) would be sufficient for each Figure. <i>Alanine Transaminase (ALT):</i> Also check Figure 2 for Y-axis labelling. Observation from Figure 2 would be that a substantial increase in ALT of liver homogenate in Group 5 than Group 4 was observed. <i>Gamma-Glutamyl-transferase (GGT):</i> Again check Y-axis labelling. Only significant observation is the substantial increase of GGT in Group 1. The X-axis labelling has changed from numerical to text from	
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	Figures 1 & 2. Such may be confusing and X-axis labelling must be consistent for all Figures – authors need to decide which they prefer but not both. This comment applies also for Figure 4 below. <i>Alkaline Phosphatase (ALP)</i>: Again check Y & X-axis labelling. Figure 4 show substantial increase in ALP from liver homogenate in Group 1, with moderate but variable increase in other groups.	
<u>Optional/General</u> comments		