

Review Form 3

Journal Name:	Journal of Advances in Biology & Biotechnology
Manuscript Number:	Ms_JABB_130239
Title of the Manuscript:	Effect of subacute heat stress on histophysiology of hepatorenal system in wistar rats and the ameliorative effect of combined antioxidants: An investigation
Type of the Article	Original Research Article

PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript provide valuable insights into the effects of subacute heat stress on the hepatorenal system in Wistar rats and highlights the ameliorative effects of antioxidants (Vitamin C, Vitamin E, and Selenium). Its significance lies in addressing an increasingly relevant issue linked to climate change and heat stress, which has broad implications for both veterinary and human health. The study contributes to understanding oxidative stress mechanisms and presents potential therapeutic strategies to mitigate organ damage caused by extreme heat exposure. This research is of particular importance to the fields of veterinary pathology, biochemistry, and climate resilience in biomedical research.	
Is the title of the article suitable? (If not please suggest an alternative title)	The current title, "Effect of subacute heat stress on histophysiology of hepatorenal system in wistar rats and the ameliorative effect of combined antioxidants: An investigation," is suitable. However, for conciseness and improved readability, consider: "Impact of Subacute Heat Stress on Hepatorenal Histophysiology in Wistar Rats and Protective Role of Combined Antioxidants."	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract provides a good overview of the study but could benefit from added precision. Suggested improvements: Explicitly state the primary findings in quantitative terms (e.g., "ALT levels increased by X%, which was reduced to Y% upon antioxidant administration"). Avoid redundant phrases like "an investigation" as they don't add value. Revised abstract suggestion: "This study investigates the impact of subacute heat stress on hepatorenal function and histology in Wistar rats, alongside the protective effects of combined antioxidants (Vitamin C, Vitamin E, and Selenium). Sixty rats were divided into control, heat-stressed, and antioxidant-treated heat-stressed groups. Biochemical markers (ALT, AST, BUN, and total protein) and histopathological evaluations revealed significant hepatorenal damage in the heat-stressed group, with marked amelioration in the antioxidant-treated group. These findings underscore the therapeutic potential of antioxidant supplementation in mitigating heat stress-induced organ damage."	
Is the manuscript scientifically, correct? Please write here.	The manuscript is scientifically sound with appropriate experimental design, statistical analyses, and clear presentation of results. However: - A detailed explanation of the biochemical pathways linking heat stress to hepatorenal damage and antioxidant action would enhance understanding. - The discussion effectively ties results to existing literature but could expand on broader implications for human and animal health. -	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references are sufficient and mostly recent, with relevant citations supporting the study. However, a few key studies on climate change-induced oxidative stress mechanisms in mammals could further strengthen the background. <u>Suggested additions:</u> A broader review article on heat stress in mammals.	

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	A study addressing similar heat stress effects in other species (if available).	
Is the language/English quality of the article suitable for scholarly communications?	The manuscript is well-written and generally suitable for scholarly communication. Minor language edits could improve fluency and clarity: <ul style="list-style-type: none">- Use consistent terminology, e.g., "hepatorenal" vs. "hepatic and renal."- Simplify complex sentences for better readability.- Correct minor typographical errors (e.g., spacing inconsistencies).	
Optional/General comments	<ol style="list-style-type: none">1- Figures and tables are clear and well-presented but could benefit from captions summarizing key findings.2- Consider elaborating on practical applications, such as implications for livestock management or translation to human healthcare.3- The study' s conclusion could be more assertive, emphasizing its contributions and future research directions.	

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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