Review Form 1.7

Journal Name:	**Asian Journal of Biochemistry, Genetics and Molecular Biology**
Manuscript Number:	**Ms_AJBGMB_98262**
Title of the Manuscript:	**Protective Effect of Carica Papaya leaves and seeds against Electrolyte and Hematological Alterations in Albino Wistar Rats Exposed to Lead Nitrate**
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 1. **Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) 2. **Is the title of the article suitable?** (If not please suggest an alternative title) 3. **Is the abstract of the article comprehensive?** 4. **Are subsections and structure of the manuscript appropriate?** 5. **Do you think the manuscript is scientifically correct?** 6. **Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**		

Abstract	
Background: Exposure to lead produces a variety of adverse health effects. This study evaluated the protective effect of aqueous extracts	Better to remove the word protective because you still don't know the effect of these extracts
Introduction	
Heavy metals	Different word style
Lead toxicity is closely related to its accumulation in various tissues and its interference with the electrolytes that hamper several physiological processes [16]. Electrolytes are structural components of body soft tissues like liver, muscle and also participate in acid-base balance and are components of blood buffers. Electrolytes play significant role in several body processes, such as controlling fluid levels, acid-base balance (PH), nerve conduction, coagulation and muscle contraction [12,17]. Fluid and electrolytes homeostasis is usually maintained within narrow limits [18]	The acid base status expressed as pH not PH Please change
In the present study, investigated the protective effect of aqueous extracts of *Carica papaya* leaves and seeds against electrolyte and hematological alterations in albino Wistar rats exposed to lead nitrate.	Better to remove the word protective because you still don't know the effect of these extracts
Collection of blood sample	
After 24hours fast, the animals were anesthesized with chloroform on the morning of the 4th week. The unconscious animal was pinned down on the dissecting board with the help of a tag pin and was dissected medioventially and whole blood was collected from the aorta with the use of a syringe and needle using cardiac puncture method. The blood was immediately transferred into an EDTA bottle which contained anticoagulant to prevent blood clotting.	How cardiac PUNCTURE METHOD AND BLOOD WAS COLLECTED FROM AORTA
Determination of electrolytes	
Serum sodium, potassium, and bicarbonate concentrations were determined using a spectrophotometer according to the method of Henry et al. [31] while chloride and calcium concentrations were determined according to the methods of Tietz [32] and Raysarkar [33] respectively.	Please check this reference I think it is wrong reference not cited in google search
Determination of hematological parameters	
The instrument can determine 16 parameters in the normal mode and 18 in the research mode: white blood cell count (WBC) with absolute number and percentage of lymphocytes (LYM),	In the remaining part of your work you right hemoglobin as Hb and here you abbreviate it as HGB. Please only one abbreviation allowed through your work

	monocytes (MONO), and granulocytes (GRAN), red blood cell count (RBC), hemoglobin concentration (HGB), packed cell volume (PCV), mean corpuscular volume (MCV), mean corpuscular hemoglobin (MCH), mean corpuscular hemoglobin concentration (MCHC).		
	Table 1 and 2 **Body weight of the experimental animals and Table 2: Organ weight of the experimental animals**		
	In CPS group the body weight was decreased And in the next table and in the same group the organ weight was decreased secondary to this body weight reduction	Please you can explain your finding in your discussion	
	Table 3		
	In the table units of measurements were not addressed in the table Na, Cl, K and bicarbonate	Please detect the units in the table	
	Table 4		
	In most of the previous studies, Hb, RBCs were decreased in lead intoxication except your study	Please can you explain this odd finding in your discussion	
	Discussion		
	Electrolytes play significant role in several body processes, such as controlling fluid levels, acid-base balance (PH), nerve conduction, coagulation and muscle contraction [12, 17]. Fluid and electrolytes homeostasis is usually maintained within narrow limits [18] and therefore, it must be kept at a level that is suitable for normal biochemical and physiological functions [19]. Therefore, imbalance in serum electrolytes is an important indicator of toxicity in identifying target organs and general health status of animals.	I think that this paragraph not suitable for discussion section. You can remove. Please concentrate on the explanation of your results	
	The elevated level of potassium in the lead treated group suggests that lead nitrate could have produced hyperkalemic effect, or excess potassium in the blood.	Repeated (not needed)	
	Severe dehydration could also produce hyperkalemia. This could also lead to alteration of the osmotic pressure of body fluids	What is the relation between dehydration, potassium and lead intoxication, can you explain this.	
	References		
	Most of your references between 2000-2010	Can you update some of your references	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**			
Optional/General comments			

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?	*(If yes, Kindly please write down the ethical issues here in details)*	

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Reviewer Details:

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