

Review Form 1.7

Journal Name:	Asian Journal of Biochemistry, Genetics and Molecular Biology
Manuscript Number:	Ms_AJBGMB_100220
Title of the Manuscript:	AMELIORATIVE EFFECT OF GRAPE SEED OIL ON ALUMINIUM CHLORIDE INDUCED NEUROTOXICITY ON RATS
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:

(<https://www.journalajrimps.com/index.php/AJRIMPS/editorial-policy>)

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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)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> Yes, but with poor study design and presentation. Neuroprotective role of Grape seed oil on Aluminium chloride induced neurotoxicity model in Wistar Rats I have modified and requested to do major changes. Suggested with many comments Author needs to do major changes in the manuscript. Scientifically good work but presentation is poor. No, Author needs to address the comment. Needs to modify the introduction and discussion sections with more informative to improve the manuscript. Abstract: Suggested with the modification for better improvement of manuscript, also required author input for betterment. Introduction: <ol style="list-style-type: none"> Introduction required to write atleast 500-600 words with strong background analysis of study with previous published articles. The flow of writing is not continuous, needs to write first from neurodegenerative disease, epidemiological impact in India/ Asia/ world. Issue of NDD with the human health condition and outcome at neuronal cells. Next, the impact of aluminium which causes NDD explains the seriousness of AI in the environment/ diet to human. Finally, the phytochemical protective role against the NDD. For each point of explanation requires proper citation. Now start explaining about the GS previous studies and your plan of conducting the study. Also, carry out the comments given in the introduction section. Short sentences require merging and rewriting the sentence. "It promotes aggregation of β-amyloid protein. It activates neurotoxicity in central nervous, skeletal, hematopoietic systems [3]." Materials and Methods: This sentence can write like, "Grape seed collection and cold pressed extract preparation: The seeds obtained from fresh whole black grapes were purchased from Madhavaram fruit shop (...) and the voucher deposited in the corresponding author's laboratory, Department of Pharmacology, Dr. MGR....., Chennai, TN, India." Experimental Animals: Mention Animal husbandry details. And the treatment of Group III to V for AICI and drug, i.e., whether it was given together or separately given in specific time interval needs to be explained. 	

Comment [VR1]: Short sentence required to merge and rewrite the sentence.

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	<p>11. Experimental design:</p> <ul style="list-style-type: none">a. As the study is designed for 28 days, needs to take at least 6 animals per group to get proper statistical analysis- justify it.b. Mention the treatments in days only. And the GSO treatment is also mentioned in days. "Neurotoxicity is induced using Aluminium chloride (175mg/kg, p.o.) for the II, III, IV, V groups have been carried out from 29th January to 27th February 2022 and GSO (3.7g/kg) treatment was carried out from 17th to 27th February 2022. Control animals were given (0.9% NaCl 5ml/kg, p.o.) by means of using oral gavage. The final dose was given 60 min prior to behavioural checking and on 27th Feb 2022, scarification of animal has been done for ex vivo studies."c. Mention the volume used for the groups in table format, justify the volume given to the treatment group was not uniform between group.d. Mention the groups in tabulation or requested to present in diagrammatic representation for the whole experimental design would reach better and improve manuscript. <p>12. Assessments Passive avoidance test: Reference needs to be mentioned inside the paragraph. Maintain uniformity for other methods also.</p> <p>13. ROTA-ROD TEST: [12] Reference needs to be mentioned inside the paragraph. Maintain uniformity for other methods also.</p> <p>14. Assessment of Antioxidant and neurotransmitter: Is this temperature maintained for preparation of homogenization or for storage of homogenized sample. Mention the temperature of sample stored till analysis.</p> <p>15. Histopathological studies:</p> <ul style="list-style-type: none">a. Explain the method of slide preparation in detail or give reference for the method adopted from which article.b. solution sand further embedded in paraffin with wax – Typoerror.c. In HP Morphological changes only can able to obtained from the result which can be explained in ameliorative effect. <p>16. Statistical analysis: Details of software version needs to mention like "(San Diego, California, USA)", etc.</p> <p>17. Results:</p> <ul style="list-style-type: none">a. Results required scientific explanation about the data interpretation.b. This sentence needs to bring this sentence in to single sentence. "On treatment with Grape seed oil (2ml), the Step-Down Latency (SDL) of Group IV animals shows significant decrease (p<0.001) when compared with Group III animals. On treatment with Grape seed oil (4ml), the Step-Down Latency (SDL) of Group V animals shows significant increase (p<0.05) when compared with Group III animals."c. Required to explain about the donepezil group. And the result section required scientific explanation about the data interpretation.d. The graph looks good, but the statistical significance needs to be mentioned in the bar graph. Moreover, mentioning bar graph and table explains same, it is meaningless to mention both in this article. Also, required to mention figure legend for the figures.e. In open field test, many other parameters also might observe, why only head dips and line crossing reported any importance behind this. Also, present the other parameters of open field study or give justification for observed only these two parameters in open field study. Additionally, open field test needs to mention in single figure by combining both figures together.f. Both tables and graphs for all the parameters represent the same. Then it would be	
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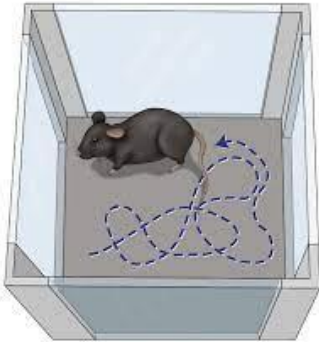
Comment [VR2]: Mention the treatments in days only. And the GSO treatment also mention in days.

Comment [VR3]: Mention the volume used for the groups, justify the volume given to the treatment group was not uniform between group.

Comment [VR4]: Typoerror

Comment [VR5]: Needs to bring this sentence in to single sentence and required to explain about the donepezil group. And required scientific explanation about the data interpretation.

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	<p>better to give only one of these will be suitable for manuscript.</p> <p>g. Diagrammatic representation of locomotor activity of rat in the arena for each group for clear representation will give good impact. Like this image.</p>  <p>h. Rota rod test: Requires explaining in more scientifically by correlating between groups.</p> <p>i. Explain antioxidant result in a single paragraph with scientific interpretation and images requires to combine all together for SOD, CAT and GR in a single figure and include figure legend.</p> <p>j. Neurotransmitter results need to be explained in scientific interpretation and keep either bar graph with figure legend or table.</p> <p>k. Brain HP interpretation for cortex and hippocampus needs to be explained deeply, also combine cortex figure together and hippocampus together. And include figure legend.</p> <p>18. Discussion: Discussion needs to be rewritten fully and requested to refer to other manuscript from AJRIMPS and discuss more with the other published result in comparison with the result obtained. Also, include the reference cited that to minimum 15-20 article from different journal required to discuss.</p> <p>19. Conclusion: Conclude, needs to rewrite in a more scientific way requested to refer to other published articles from other journals too.</p> <p>20. Reference: Reference needs to include more recent, at least from within 5 years published articles.</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>The manuscript language quality is very poor to accept in the journal but can be consider after major changes with English editing.</p>	
<p>Optional/General comments</p>	<p>For the Author understanding I have attached the reviewed manuscript with the comments. Also, Author is requested to reply for the comments in Point to point discussion.</p>	

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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>	

Reviewer Details:

Name:	Ramu Venkatesan
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