

Review Form 1.6

Journal Name:	Journal of Complementary and Alternative Medical Research
Manuscript Number:	Ms_JOCAMR_89520
Title of the Manuscript:	Can rare metal elements show co-genotoxic effects by inhibiting DNA repair?
Type of the Article	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)
<p>Compulsory REVISION comments</p>	<p>The title of a paper can't be a question. The title is to be changed.</p> <p>In abstract: In this study, the</p> <ol style="list-style-type: none"> effects on DNA repair of all RE ions except radioactive Pm were studied.” What is Pm? Not mentioned in abbreviations. Since araC inhibits re-synthesis step of NER, they would inhibit the resynthesis step of NER= meaning is not clear, reframe the sentence. <p>In the materials and methods</p> <p>The rare earth metal salts used were ScCl₃, Y (NO₃)₃, La(NO₃)₃, CeCl₃, PrCl₃, Nd(NO₃)₃, , SmCl₃, Eu(NO₃)₃, GdCl₃,55 TbCl₃, DyCl₃, HoCl₃, Er(CH₃COO)₃, ErCl₃, TmCl₃, YbCl₃, and LuCl₃. = all the chemicals names and molecular weights are to be given.</p> <p>All reagents used were of the highest grade 56 commercially available.= meaning not clear. Must speicifiy the grade and brand.</p> <p>This study was conducted as the experimental design described in our previously study [8,9].= a short description is needed here.</p> <p>What is the statistical model and software used is not mentioned here. Which Post Hoc test was employed and why needs to be specified.</p> <p>In graph tail length (m) is given, the unit is unclear. What is the mathematical formula used to calculate head diameter and tail length in comet?</p> <p>Table 2. Cytotoxic effects of post-treatment with REs in WTK1 cells.: what is the cytotoxic model employed here? Nothing about cytotoxicity has been mentioned in the materials and method section. Please justify. The data has no statistical relevance. What is the postitice control? Which anti-oxidative drug treatment has been employed here as positive control?</p> <p>What is the rationale of choosing the dose (6.25 to 100 uM concentrations during cytotoxic assays)</p> <p>What is the LD50 dose response of each RE? Justify.</p> <p>In the discussion section the authors have written</p> <p><i>'Like as La, aqueous extracts of Sophora japonica L. and 142 Connarus ruber have been shown to increase and decrease tail length with or without araC, respectively [8, 9]. Both 143 aqueous extracts were discussed to enhance the incision of GGR sub-pathways in NER (where SSBs are formed), 144 followed by SSB rejoining. Like as both aqueous extracts La could be considered to enhance the incision of GGR, 145 from which only La has an anti-genotoxic but not co-genotoxic effect. RE ions also have nematocidal activities as they 146 strongly perturb the embryonic development of the nematode, Caenorhabditis elegans [12]. Although it increased 147 with increasing atomic number of lanthanide ions, the correlation between their effects on NER and atomic number 148 was not observed”.</i></p>	

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	<p>= what is the justification and correlation of the aqueous extracts and their mode of action with the NER with RE employed here? Aqueous extracts have multiple chemical compounds which act altogether in a system to exert their particular pharmacological action. But in this experiment pure salts of REs were used as single action ions which has no other interfering substances with them in action. So how come these two phenomenon be correlated in this particular assay as suitable candidates showing same mode of action? justify</p> <p>The whole paper needs thorough rewriting before resubmission.</p>	
Minor REVISION comments	<p>Figure legends are not proper,</p> <p>No comet picture has been given, must attach comet plates.</p>	
Optional/General comments	<p>The language needs more substantiation with possible grammatical changes.</p>	

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?	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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