

Review Form 1.6

Journal Name:	International Journal of Advances in Nephrology Research
Manuscript Number:	Ms_IJANR_77961
Title of the Manuscript:	Assessment of renoprotective effect of Pentaclethra macrophylla seed (Ugba) against Mercury induced acute kidney injury in male Albino 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:

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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	<p>The author studied the renoprotection of pentaclethra macrophylla on acute kidney injury induced by mercury chloride in rats. This is a good basic medical science exploration of the potential benefit of a locally available plant seed on the toxicity of a commonly encountered chemical compound.</p> <p>In the introduction, a fair account of the mechanism of renal injury of Mercury Chloride was presented. However, no mention was made of the mechanism of renoprotection of pentaclethra macrophylla. The author needs to provide the science behind the renoprotection of the interventional substance and justify the study's importance.</p> <p>The calculation of sample size is an essential first step in animal experiments. It is critical in determining the number of animals to include in the study to provide sufficient statistical power for its findings. Because no sample size was determined in this study, the study's statistical power to provide statistically acceptable significance is an issue.</p> <p>The author should cite the study on dose determination for acute toxicity of mercury chloride used to induce kidney injury.</p> <p>He should provide information on the duration of storage of the fermented seeds before utilization.</p> <p>Tetraoxosulphate vi acid, sulphanilamide, hydrochloric acid, thiobarbituric acid, trichloroacetic acid, sodium hydroxide, ethylenediaminetetraacetic acid, sodium nitroprusside, urease, phenol, picric acid, 2, 4 – dinitrophenyl hydrazine were all used in the study. However, there was no explanation given as to what these reagents and chemicals were used for.</p> <p>The author claims to have used H&E stain for plates 2,3, and 4. However, the lack of recognizable cell nuclei in any of these plates does not support this claim.</p> <p>In Plate 1, what is labelled as tubule does not correlate with the known structural anatomy of tubules, and the author's anatomical descriptions are somewhat difficult to comprehend. For example, what is a moderate glomerulus?</p> <p>What were the average serum urea and creatinine levels in each group before administering the mercury chloride?</p> <p>in the first paragraph, the author attributed the observed functional impairment to chronic renal failure. "The elevation in Urea and Creatinine levels in group 2 animals reached significant levels at the end of the experiment. This could be attributed to chronic renal failure provoked by mercury intoxication to renal cells and tissues.....". In the second paragraph, however, he attributed the functional impairment to acute renal failure" The elevation in kidney cystatin c and kidney injury molecule – 1 levels in group 2 rats reached a significant level. This could be attributed to acute renal failure precipitated by mercury intoxication to renal cells and tissues,.....".</p> <p>The same substance is said to have caused two distinct histological and clinical entities in the same group of animals at the same time. This raises serious questions about the author's comprehension of the pathological features described in his experiment.</p> <p>Many statements are unclear in the manuscript. e.g. "Indeed, mercury accumulates in the</p>	<p>Information on that has been included in the introduction.</p> <p>No calculation of sample size was used, but the use of 6 rats/group has sufficient statistical power, with the type of study design used.</p> <p>The study on dose determination for acute toxicity was determined by same authors in the larger project.</p> <p>The duration of storage was as long as the study period lasted.</p> <p>Corrections have been made to that effect.</p> <p>The values for those parameters were not measured before administering the mercury chloride. The values for rats in the control group (Group 1) were used for comparison with values in other groups.</p> <p>Corrections have been made.</p>

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	epithelial cells of proximal tubules where it binds to intracellular sulfhydryl, phosphoryl and carboxyl groups, a situation that leads to inhibition of cell increase, enzyme inactivation,....." and "Therefore, in 135±1.5g rats, 0.5g/ml will be equivalent to 3.7g/kg body weight of rats." The author needs to revise the manuscript and effect appropriate changes. This manuscript requires extensive revision before it can be considered acceptable.	Corrections have been made.
Minor REVISION comments		
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)	No ethical issues.