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Journal Name:	European Journal of Nutrition & Food Safety
Manuscript Number:	Ms_EJNFS_36022
Title of the Manuscript:	Effect of Gum Arabic as Prebiotics and lactobacillus casei shirota (LcS) as probiotic on Oxidative Stress and Renal function in Adenine-Induced Chronic Renal Failure in 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:

(<http://www.sciencedomain.org/journal/30/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)
Compulsory REVISION comments	1-Without a mechanism the claim that Arabic gum has antioxidant properties is more hand-waving. It is better to discuss perhaps a particular component to Arabic Gum that would support your claim of prevention of toxicity when exposed to oxidative stressor. 2-The mechanism of GA described involving fecal nitrogen excretion is controversial. It is doubtful that this is the case. In the treatment of hepatic encephalopathy, the lowering of serum ammonia after lactulose administration in cirrhotics is not associated with an reduction of circulating urea. 3-The authors claim that 10% reduction of BUN was significant is suspect and a very small effect. Generally the clinical risk associated with high BUN is after tripling the concentration. Why would a 10% reduction matter then? 4- Tables and statistical analysis need improvement. Repeated measures anova when pre post measurements are included. Bar graphs or line graphs to better depict the effect observed in each of the treatment groups. 5-There are multiple grammatical errors likely attributed to the use of computerized translation software. Someone with a good command of English needs to grammatically edit this manuscript. The authors should be credited for their hard work however there are major revisions that must be addressed. Additional comments included in the manuscript.	The mechanism the claim that Arabic gum has antioxidant properties has been discussed as following : The nephroprotective effect of GA against many nephrotoxic agents was noted in numerous previous researches. [38], [39]. The antioxidation induced by GA might be one of the most likely mechanisms contributing to its beneficial effect against renal injury. This antioxidant effect of GA was confirmed previously by in vitro studies, which showed that AG had a dose-dependent scavenging of superoxide radicals generated enzymatically and nonenzymatically. It could be suggested that AG scavenges Adenine free-radical generation and, in turn, inhibits lipid peroxidation–induced injury in renal tissues, which has been suggested to protect renal structure and function. Therefore, the protective effect is provided by GA on renal tissue through antioxidants as well as by scavenging free radicals in vivo. 2-This part has been illustrated regarding to other studies as in the following: It has been demonstrated that, chronic renal failure (CRF) patients consuming low protein diet (LPD) supplemented with 50 g Arabic gum/d had greater fecal bacterial masses, greater fecal nitrogen excretion, and lower serum urea nitrogen than those consumed the LPD alone or supplemented with 1 g pectin/d. Because elevated concentrations of serum urea nitrogen have been associated with adverse clinical symptoms of CRF, the results suggest that Arabic gum may be a useful adjunct to a LPD for increasing excretion of nitrogenous wastes in feces [40]. Other study by Ali et al. [41] on rat models of acute renal failure showed that Arabic gum may also improves renal function independently of its action on fecal bacterial ammonia metabolism, but its effect is attributed to a decrease in the generation of free oxygen radicals.



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<u>Minor</u> REVISION comments		3-In the current study the decrease in urea was 32.82, 28.80 and 34.10 for groups 5, 6, 7 respectively as compared to group 2(adenine – treated group). The 10% is just in another study I used it as comparison. 4- Table (2) has been replaced with bar graphs. 5- The manuscript has been revieid with a natrive English speaker
<u>Optional/General</u> comments		