

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 33749

Title: Anti-oxidant and anti-inflammatory effects of hydrogen-rich water alleviate ethanol-induced fatty liver in mice

Reviewer's code: 02441481

Reviewer's country: Greece

Science editor: Jing Yu

Date sent for review: 2017-03-02

Date reviewed: 2017-03-05

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input checked="" type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

Dear Author, I found your manuscript well documented and interesting. The performance of methodology and the statistical analysis of your results are very well established. You analyzed many biomarkers in the serum as well as in the liver tissue, so as, to support your basic hypothesis that HRW can prevent progression of steatosis, liver damage and fibrosis. I believe that your research will be a useful guidance for the treatment of NASH in humans also. Concerning the limitations of your study, that you are mentioning, I agree that it should be better to have measured des-acyl ghrelin, as well as, leptin levels in the serum to enhance your results, but your effort still remains reliable.

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 33749

Title: Anti-oxidant and anti-inflammatory effects of hydrogen-rich water alleviate ethanol-induced fatty liver in mice

Reviewer's code: 03664979

Reviewer's country: Austria

Science editor: Jing Yu

Date sent for review: 2017-03-07

Date reviewed: 2017-03-13

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

Using a mice model, Lin et al. reported that hydrogen-rich water (HRW) ameliorate ethanol (EtOH)-induced early fatty liver by repressing inflammation and promoting anti-oxidation effects. The data representing in the present study should be rational, but this study throughout suffers from the single method used for each result. Also, the manuscript writing is not well organized and lacking conciseness, and 'Discussion section' is very long and difficult to read. Several major issues need to be elucidated. 1. The authors assessed the levels of some hepatic antioxidant enzymes, all of which increased in HRW+ groups. Since HRW can directly scavenged ROS (hydrogen peroxide), the hepatic ROS level was lower in EtOH group, why the expression of these antioxidant enzymes were be up-regulated in the liver? Whether the roles of these antioxidant enzymes were more important than HRW or not in the protection of EtOH-induced early fatty liver? PRDXs, a crucial antioxidant enzyme family, which can also directly scavenged ROS (hydrogen peroxide), should be assessed in the present

study. 2. Hepatic steatosis, fibrosis and cirrhosis can ultimately lead to hepatocellular carcinoma, and the incidence in male is much more than that in female. So, why only female mice were employed in this study? 3. Besides Liquid diets, were the mice given some other diets? Single Liquid diet during a long time is unnatural, which maybe affect the secretion, digestion and absorption in gastrointestinal tract. 4. Although the biomarkers of liver injury, ALT and AST, were provided in this study, but the levels of ALT and/or AST were not always coincide with the severity of liver damage. Therefore, the changes in histopathology are more important in this study, and significant enhanced resolution pictures should be provided. 5. ROSs also play diverse roles in many signaling, however, HRW can directly scavenged ROS in the whole body, and it should be considerable that whether HRW have some side effects to other organs, such as kidney, or not. The histological pictures of main organs should be provided. 6. The protect roles of alone HRW showed not better than silymarin, and only HRW combined with silymarin showed significant beneficial roles protecting from EtOH-induced early fatty liver. Were the mice from alone silymarin and HRW combined with silymarin groups given equivalent dose of silymarin? If so, properly increased dose of silymarin maybe produce the same results as to HRW+ silymarin.