

PEER-REVIEW REPORT

Name of journal: World Journal of Hepatology

Manuscript NO: 34540

Title: Morphological alterations and redox changes associated with hepatic warm ischemia-reperfusion injury.

Reviewer's code: 00069137

Reviewer's country: Mexico

Science editor: Li-Jun Cui

Date sent for review: 2017-06-01

Date reviewed: 2017-06-09

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 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"/> No	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

The authors present an interesting study on the microstructural alterations of liver in a warm ischemia-reperfusion setting. The main strengths is that it is an in vivo human study, a design rarely performed, and the results involving the LSECs are interesting. The manuscript is well-written. The data is analyzed correctly. The patients with a history of cancer and receiving chemotherapy would be expected to have important differences in liver integrity, function and redox state than "healthy/normal" livers. This would be a major confounder. Could this account for the negative results on redox? Maybe tone down the speculation in the next to last paragraph of the discussion? The sample is small (but understandable, considering the complexity of the design). Are the methods used to quantify microscopy findings validated in other publications? The authors state that the short ischemia time is a limitation. Maybe discussing pre-clinical studies that have described changes at precise time-intervals (5, 10, 15, 20, 30, 60 min etc.). The introduction could be shortened, and the physiopathologic detail could be



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placed in the discussion. Relevant literature that authors could check: Hepatobiliary Pancreat Dis Int. 2002 May;1(2):249-57.

PEER-REVIEW REPORT

Name of journal: World Journal of Hepatology

Manuscript NO: 34540

Title: Morphological alterations and redox changes associated with hepatic warm ischemia-reperfusion injury.

Reviewer's code: 00467399

Reviewer's country: Italy

Science editor: Li-Jun Cui

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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 checked="" 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 type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

In patients undergoing liver resection, portal triad clamping (PTC) was performed and warm ischemia/reperfusion injuries were studied. Biopsies were taken in basal conditions, 20 min after PTC and 20 min "after" reperfusion. The cellular lesions brought about by the procedure involved either liver sinusoidal endothelial cells (LSECs) or hepatocytes. In particular, while a loss of lining LSECs was observed together with the formation of pseudopod-like projection on their surface, the hepatocytes showed a loss of microvilli with crystalline inclusions at mitochondrial level. Interestingly, while the alteration of LSECs were reversible with reperfusion, this did not always occur for crystalline inclusions in hepatocytes, which however were scarcely affected in their morphology. There is a point that is reported in the results, but that is not sufficiently emphasized in the discussion, is the short time taken by the appearance and disappearance of the cell changes in ischemia and reperfusion. This is a point of particular importance in surgical intervention. Although the reported data are reliable,

the presentation needs a revision, mainly in the “Method” section from the subtitle “Transmission electron microscopy” on. In this section several symbols and acronyms lack an adequate explanation. As an example, what does Leica EM UC 6 mean? In the hypothetical case that it is an electronic microscope (EM), it is difficult to understand how it can prepare sections, unless it is a very special device which should be better described. In the subtitle “Gene expression analysis of redox regulating system” the gene expression of NFE2L2 and SLC7A11 is mentioned without any explanation of what the two acronyms mean. Although the English is rather correct, the article is presented in a spoken, rather than in what should be a written language. Thus, on page 11, par. 2, line 7 we read: “Post-ischemia, the most noticeable change...” what would be ok in an oral communication, but not in a journal article. An identical observation may be done for “Post-reperfusion, there was...” that we find just at the top of page 12.