

PEER-REVIEW REPORT

Name of journal: *World Journal of Hepatology*

Manuscript NO: 74702

Title: DNA and RNA oxidative damage in hepatocellular carcinoma patients and mortality during the first year of liver transplantation

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05095017

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Assistant Professor

Reviewer's Country/Territory: Japan

Author's Country/Territory: Spain

Manuscript submission date: 2022-01-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-28 00:40

Reviewer performed review: 2022-02-01 07:10

Review time: 4 Days and 6 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No
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SPECIFIC COMMENTS TO AUTHORS

This is a manuscript about DNA and RNA oxidative damage in patients with hepatocellular carcinoma and the authors showed that mortality during the first year of liver transplantation is associated with serum 8-OHdG concentration prior to LT. Overall, this story is interesting, however, there are some concerns that need to be addressed and I cannot recommend it for publication in the present form. 1) Although 8-OH-dG is a commonly used marker for oxidative DNA and RNA damage, there are several other markers that represent oxidative stress for nucleic acid, such as AP sites and 8-nitro-cGMP. Were they tested? 2) Did serum 8-OH-dG correlate with the oxidative stress in the liver or HCC tissue? 3) How was the level of serum 8-OH-dG in healthy control or chronic liver patients without HCC? 4) Does serum 8-OH-dG change after LT? Which is better serum marker for prognosis, before or after LT? 5) What was the cause of death after LT ? Graft rejection, HCC recurrence or others? Were there any differences among them in terms of serum 8-OH-dG?

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Reviewer's code: 06107956

Position: Peer Reviewer

Academic degree: Doctor, MD, PhD

Professional title: Assistant Professor, Doctor, Lecturer, Postdoc, Postdoctoral Fellow, Surgeon, Surgical Oncologist

Reviewer's Country/Territory: Viet Nam

Author's Country/Territory: Spain

Manuscript submission date: 2022-01-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-02-04 16:14

Reviewer performed review: 2022-02-10 09:34

Review time: 5 Days and 17 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection

Re-review	[<input checked="" type="checkbox"/>] Yes [<input type="checkbox"/>] No
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SPECIFIC COMMENTS TO AUTHORS

First, I think this is a new approach to find out the prognostic factors for mortality in the first year after liver transplantation. Therefore, the new findings of their study could motivate the research to clarify the potential role of oxidative damage in the prognosis of LT patients due to HCC and to explore the use of antioxidants agents to reduce oxidative stress in those patients. However, I have some comments and questions for this manuscript.

1.Q1 Greater DNA oxidative damage (assessed by concentration of 8-OHdG in liver biopsy samples) has been found in patients with chronic hepatic disease with HCC than without it public on 2001 and 2008. The patient had received LT for a long time (20 years ago). So, at the beginning, did the author ask a research question on this issue about DNA and RNA oxidative damage (serum OGS levels)??

2. Q2 In an article published by the author in 2019 about the relationship of caspase-3 with 1-year survival prognosis (stage 1996 - 2017, 139 patients - 16 died, 123 lived) - In this article, the author mentions OGS serum, 114 patients (2001 - 2017), 13 deaths, 101 rivers. - So the question arises: do these patients overlap? Why not include caspase-3 in multivariate analysis??

3. Q3 Most of the documents are not up to date related to the topic of the research author. There can be 2 reasons: 1. This is a very new topic 2. Researched and it doesn't really make sense in clinical practice The author needs to explain this issue?