

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Hepatology

**Manuscript NO:** 46498

**Title:** Roles of hepatic stellate cells in liver failure: From the perspective of inflammation and fibrosis

**Reviewer's code:** 03024263

**Reviewer's country:** Russia

**Science editor:** Ruo-Yu Ma

**Reviewer accepted review:** 2019-03-19 16:24

**Reviewer performed review:** 2019-03-20 17:10

**Review time:** 1 Day

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input checked="" type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

If the role of hepatic stellate cells (HSCs) in fibrosis and liver regeneration, as well as morphofunctional rearrangement of the hepatic vasculature in cirrhosis is now well known, their significance in acute liver failure is not well understood. Indeed, during



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chronic liver injury, HSC differentiate into contractile myofibroblasts, which contribute to tissue repair alongside regions of cellular demise. Perhaps the same happens with acute liver failure. Referring to their previous works, the authors suggest that HSCs inflammation is involved in the pathogenesis of liver failure (which?). HSC inflammation or inflammation in HSCs - what is it? In my opinion, the title of the article is not correct. Probably the correct call it is "Roles of hepatic stellate cells in acute liver failure"...? It is not clear where the authors write about acute, chronic, or acute-on-chronic liver failure. The text has a link to the article [28]. Her author is Alexander Dechene. Alexander is a name.

#### **INITIAL REVIEW OF THE MANUSCRIPT**

##### ***Google Search:***

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

##### ***BPG Search:***

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Hepatology

**Manuscript NO:** 46498

**Title:** Roles of hepatic stellate cells in liver failure: From the perspective of inflammation and fibrosis

**Reviewer's code:** 00052926

**Reviewer's country:** Greece

**Science editor:** Ruo-Yu Ma

**Reviewer accepted review:** 2019-03-31 14:09

**Reviewer performed review:** 2019-04-03 20:12

**Review time:** 3 Days and 6 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
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		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

The authors have conducted an interesting review which highlights the role of hepatic stellate cells in the various types of liver failure. The authors have apparently worked and have knowledge on the subject. However, I have the following issues with the

manuscript: Major issues 1.The authors don't differentiate the role of HSC in the different kinds of liver failure i.e acute, chronic (cirrhosis) or acute on chronic. 2.2-3 paragraphs in the end about the possible therapeutic implications based on the modification of stellate cells function may be of interest. 3.The sentence "firstly, HSCs activation participates in the maintenance of cell attachment and the architecture of liver tissue via ECM production; secondly, HSCs activation assists liver regeneration by producing growth factors; thirdly, HSCs inflammation plays a role in relaying inflammation signaling from sinusoids to parenchyma via secretion of inflammatory cytokines" is repeated as it is in Abstract, Core tip and Conclusions. Please consider revision. 4.Part of the sentences " Liver failure, including acute liver failure, chronic liver failure and acute-on-chronic liver failure, is a rare but dramatic clinical syndrome characterized by massive hepatocyte death and over activation of hepatic inflammation. Liver failure usually results in hepatocellular dysfunction and coagulopathy and carries a high mortality rate" is repeated as it is in Abstract, core tip and Introduction. Please consider revision. Minor issues 1,There is not Page numbering. 2,Introduction "The main causes of liver failure include viral hepatitis, ischemia and drug-induced toxicity" The causes of liver failure vary according to the type. There are different in acute, in chronic or in ACLF. Please revise. 3,Abstract "Liver failure, including acute liver failure, chronic liver failure and acute-on-chronic liver failure" The word "failure" is repeated four times in the same phrase! 4.In many positions the References are missing. For example" Clinical data have revealed that patients with chronic liver disease are not sensitive to the deleterious effects of toxic compounds .....healthy individuals" (any reference?). 5."GalN is a hepatotoxic agent, which inhibits protein synthesis, and is usually used together with LPS to create ALF mouse models."(any reference?) Please revise and put references where they are missing. 6.Abstract: "Hepatic stellate cells (HSCs) are famous for their roles in liver fibrosis, although some recent studies revealed that HSCs may



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participate in the pathogenesis of liver failure, the accurate mechanism is still not fully understood." The phrase is not correct. Please revise. 7."Moreover, Alexander et al found that ALF is accompanied by active hepatic fibrogenesis, and revealed positive correlations between liver stiffness, degree of hepatocyte death and the intensity of HSCs activation, which suggests that fibrosis is a response to ALF, and an attempt to repair liver damage, and a decrease in liver stiffness in the remission stage of the disease was also found in these ALF patients" The phrase is not correct. Please revise. 8.The abbreviation "ECM" is present in the Abstract without explanation.

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