

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 40791

Title: Analysis of the NO-cGMP pathway in animal liver cirrhosis suggests phosphodiesterase-5 as target to treat portal hypertension

Reviewer's code: 03024263

Reviewer's country: Russia

Science editor: Xue-Jiao Wang

Date sent for review: 2018-07-16

Date reviewed: 2018-07-26

Review time: 10 Days

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 type="checkbox"/> Grade B: Minor language	(High priority)	<input type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input 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 type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

I read with great interest the manuscript submitted for the review. Indeed, previous experiments on rats with a model of cirrhosis showed that inhibitors of phosphodiesterase-5 (PDE-5), as a result of increased expression of tetrahydrobiopterin,



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activity of GTP COX-1, protein levels of phosphoAkt, phospho-eNOS and soluble guanylate cyclase, improved the bioavailability of NO in the liver, eliminated endothelial dysfunction, increased sinusoidal flow and reduced hepatic vascular resistance. In this respect, the authors provided new knowledge on the role of PDE-5 in the pathogenesis of portal hypertension. The experimental study was carried out at a good methodological level. Concerning the potential of sildenafil in portal hypertension therapy, further clinical trials are required because previous studies on the efficacy and safety of the PDE-5 inhibitors (sildenafil, tadalafil, vardenafil) in patients with cirrhosis have shown conflicting results. The study has a number of limitations which are indicated by the authors themselves.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ [Y] No

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- ☐ [Y] No