

ESPS Peer-review Report

Name of Journal: World Journal of Gastroenterology

ESPS Manuscript NO: 9512

Title: POLYETHYLEN GLYCOL RINSE SOLUTION : AN EFFECTIVE WAY TO PREVENT ISCHEMIA REPERFUSION INJURY

Reviewer code: 02439211

Science editor: Su-Xin Gou

Date sent for review: 2014-02-15 13:06

Date reviewed: 2014-04-02 15:14

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	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 type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<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"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

COMMENTS TO AUTHORS

The maintenance of organ viability during preservation is an important prerequisite for the outcome after LT. In this study entitled "POLYETHYLEN GLYCOL RINSE SOLUTION: AN EFFECTIVE WAY TO PREVENT ISCHEMIA REPERFUSION INJURY", the authors studied a new rinse solution containing PEG-35 for preventing IRI in the liver graft. Using biochemical determinations, Western Blot Analysis, zymography and confocal fluorescence microscopy, they studied the function of PEG-35 in the processes of liver injury, liver function, Oxidative stress, mitochondrial injury, liver cytoskeleton alteration and liver autophagy. While the role of PEG-35 in the protection against IRI is not surprising, I believe that there are merits in this study because it may give some cues for future researches and clinical application in LT. In general, the study is well performed and the conclusions are justified. Minor-revision of the current version is recommended. The followings are my comments. 1. My major concern is the concentration of PEG-35 that the authors used in the work, such as 1 and 5 g/L. Why do they choose these? Are they based on certain natural conditions? Basically, the physiological implications of these concentration used should be explained. And is there an optimal concentration of PEG-35 for preventing IRI if more concentrations are explored? 2. The sentence in page 4 describes that "Also PEG35 rinse solution increased the expression of cyto-protective heat shock proteins (HSPs) such as HO-1 and HSP70, AMP-activated protein kinase and contributed to restore the cytoskeleton integrity following IRI". Did PEG35 contribute to restore the cytoskeleton integrity following IRI? Why? Or did PEG35 just prevent the damage of cytoskeleton integrity by preventing IRI. 3. There are also some errors that needs correction, such as



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“AMP-activated protein kinase and Heat shock proteins and were determined”, “A growing body of evidences indicates that mitochondrial dysfunction is a critical pathologic mechanism in liver reperfusion injury”, and “In these investigations we demonstrated that AMPK contributed to activate the constitutive e-NOS leading to nitric oxide (NO) generation”. CLASSIFICATION OF THE MANUSCRIPT: Grade B: very good LANGUAGE EVALUATION: (2) Grade B: minor language polishing