

19.04.2018

Revision of manuscript (38683): Ischemia/Reperfusion Injury in Porcine Intestine – Viability Assessment

April 19, 2018

World Journal of Gastroenterology

Dear editors,

Thank you for considering our manuscript for publication in the World Journal of Gastroenterology. We also want to express our gratitude to the reviewers for taking the time to provide insightful comments and relevant questions. In this document, we first give a short summary of the changes before answering the comments or questions from the reviewers and editors point by point.

Summary of changes

Manuscript heading (changes suggested by the editors):

1. We added the following line: **Manuscript NO: 38683**
2. We have added the following sentence after the Core Tip paragraph:
Runar J Strand-Amundsen, Henrik M Reims, Finn P Reinholt, Tom E Ruud, Runkuan Yang, Jan O Hogetveit, and Tor I Tonnessen. Ischemia/Reperfusion Injury in Porcine Intestine – Viability Assessment. World J Gastroenterol 2017; In press

Figures/tables:

1. **Changes suggested by the editors:** We have decomposed the group-images of figure 1 and 5 and have added separate images in the revised manuscript. In addition, we have uploaded a PPT file as part of the revision files with copies of the original images (38683-Image-File-revision.pptx).
2. We have edited the text for the x-axis on the intraluminal glycerol plot in figure 2 from the incorrectly stated “Duration [minutes]”, to the correctly stated “Duration [hrs]”.

Introduction:

1. Based on a comment made by reviewer # 02441161, we added reference **14** to the last sentence of the fourth paragraph of the introduction

Article highlights:

1. These have been added as suggested by the editors.

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Files that have been uploaded at the request of the editors:

1. 38683-Approved-Grant-Application-Form(s)-or-Funding-Agency-Copy-of-any-Approval-Document(s)-revision.pdf
2. Audio Core Tip
3. 38683-Image-File-revision.pptx

The changes have been implemented and **highlighted** in the updated version of the manuscript.

Answers to comments/questions from the reviewers and the editors

- The comments and questions from the reviewers and the editors are in blue color.
- Our replies are in black color.
- Text that has been added or modified in the revised manuscript are in red color.

Reviewer # 02441161

COMMENTS TO AUTHORS:

This excellent study written by Runar J Strand-Amundsen et al. has perfectly gone through the knowledge of the viability assessment of segmental small bowel ischemia/reperfusion in a porcine model. They found three hours of total ischemia of the small bowel followed by reperfusion appears to be the upper limit for viability in this porcine mesenteric ischemia model. I thoroughly enjoyed reading this manuscript, especially, the outcomes that can be achieved. The figures and tables are impressive to me. If they could cite and discuss the follow paper (World Journal of Gastroenterology, 2013 June 21; 19(23): 3555-3561) about gut ischemia/reperfusion injury in the discussion section it will be more readable to the readers.

We thank the reviewer for the insightful comments. While we did not measure heme oxygenase in our experiment series, we did find the review article interesting and have cited the article (reference 14) as part of the last sentence of the fourth paragraph of the introduction (modification in red color):

"The extent of ischemia/reperfusion injury is variable and dependent on the underlying mechanisms, the duration of ischemia, the length of the affected segment and hypoxic tolerance of the tissue [10, 14]."

Reviewer # 00503243

COMMENTS TO AUTHORS:

The aim of the study was to a better understanding of gut ischemia reperfusion damage in the porcine gut using visual grading, microdialysis and histological grading. At the basis of the study are similarities between pig and human tissue. The authors were able to establish three hours of ischemia duration as the upper limit for viability. Unfortunately, microdialysis was unable to give further information. Notwithstanding this limitation of the study, the manuscript is well written, and the study is important in the field of determining the main limitation in human beings affected by gut severe ischemia

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We thank the reviewer for the insightful comments and agree on the importance of the study with respect to translational research.

The Editors:

1. You need to provide the grant application form(s) or certificate of funding agency for every grant, or we will delete the part of "Supported by...".

We have uploaded a grant application acceptance document as part of the revision files, describing the roles of the Norwegian research council and Sensocure AS. (38683-Approved-Grant-Application-Form(s)-or-Funding-Agency-Copy-of-any-Approval-Document(s)-revision.pdf)

2. In order to attract readers to read your full-text article, we request that the author make an audio file describing your final core tip, it is necessary for final acceptance. Please refer to Instruction to authors on our website or attached Format for detailed information.

We have created and uploaded an audio file as part of the revision files.

3. Please provide all authors abbreviation names and manuscript title here. *World J Gastroenterol* 2018; In press

We have added the following sentence after the Core Tip paragraph:

Runar J Strand-Amundsen, Henrik M Reims, Finn P Reinholt, Tom E Ruud, Runkuan Yang, Jan O Hogetveit, and Tor I Tonnessen. Ischemia/Reperfusion Injury in Porcine Intestine – Viability Assessment. *World J Gastroenterol* 2017; In press

4. Please finish this part following the below reminders (Article highlights)

We have added article highlights as suggested by the editors.

5. Please check and confirm that there are no repeated references!

We have verified that there are no repeated references.

6. Figures 1 and 5: Please provide the decomposable figure of Figures, whose parts are movable and editable. So please put the original picture as PPT so that we can edit them easily.

We have decomposed the group-images of figure 1 and 5 and have added separate images in the revised manuscript. In addition, we have uploaded a PPT file as part of the revision files with copies of the original images (38683-Image-File-revision.pptx).