Reviewer's report

Title: Dissolved molecular hydrogen (H2) in Peritoneal Dialysis (PD) solution preserve mesothelial cells and peritoneal membrane integrity

Version: 1 Date: 04 Jul 2017

Reviewer: Carl Öberg

Reviewer's report:
While the manuscript is much improved, there are still some minor issues that need to be dealt with. First, it is stated both in the Background and in the Discussion that hydrogen gas is inert. Hydrogen gas is however not chemically inert. By contrast, hydrogen reacts readily with many oxidizing agents such as oxygen and other electronegative elements. In my opinion this factual error must be corrected before the article can be accepted.

Secondly, as I pointed out in my first review, the manuscript is not paginated. This makes it much more difficult to review. Please, for future reference, make sure all your manuscripts have page numbers. Lastly, there are several misspelled words and grammatical errors in the manuscript that need to be corrected.

Title: appropriate.

Abstract: several minor issues
line 8: remove comma after "problematic"
line 10: remove "it" before "constitutes"
line 12: insert "an" before anti-oxidant
line 12: replace "to ameliorate" with "ameliorating"
line 14: insert "the" before "peritoneal membrane"
line 37-38: plural "increased numbers of positive cells"
line 39: replace "of" with "in" before immunostainings
line 41: replace "they" with "there"
Background: mostly well written
line 48–49: remove "an" before "H2"
line 50: insert "the" before "peritoneal membrane"

Method: Much improved.
line 45: Insert "With" before "Regards" and "the" before "surface length" and "peritoneal membrane"
line 46: replace "were" with "was"

Results: some minor issues
line 6–7: insert "the" before "membrane"
line 12: "such" misspelled

Discussion:
line 44–45: insert "the" before "PD group"
line 48: replace "remained" with "remains"
line 51: The sentence starting with "Therefore .." needs to be re-phrased for example "Apparently, mesothelial cells are both in a damaged "pre-apoptotic" state and in a state of compensatory proliferation in order to restore the membrane".
line 56: insert "caused" after "disruption"
line 2–3: replace "were" with "was a"
line 6: replace "the" with "a" before "phenotypic"
line 6: insert "the" before "mesothelial cell"
line 18–19: replace "remained" with "remains"

**Are the methods appropriate and well described?**

If not, please specify which controls are required in your comments to the authors.

Yes
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:
Not suitable for publication unless extensively edited

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