

December 15, 2014



Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 15108-review.doc).

Title: A novel isolated cecal pouch model for endoscopic observation in rats

Author: Kurodo Koshino, Nobuo Kanai, Masayuki Yamato, Teruo Okano, and Masakazu Yamamoto

Name of Journal: *World Journal of Gastroenterology*

ESPS Manuscript NO: 15108

The manuscript has been improved according to the suggestions of reviewers:
Our answers for the reviewer's comments are shown with the original comments.

[Comment] 1. The section of results seems to be too simple. In general, most figures appear in the Results and I strongly advise that surgical procedures had better combine with the section of results.

[Answer] We appreciate the reviewer's important comments. We revised and modified the section of "Materials and Methods" and "Results" as you suggested.

Please, follow the details described our modifications below;

1. We divided the "Results" section into 3 subsections that included;
 - (1) *Endoscopic observation of cecal pouch membrane*
 - (2) *Creation of an artificial ulcerative lesion on cecal pouch membrane*
 - (3) *Comparison of the "Side-to-Side" anastomosis (SSA) with "End-to-End" anastomosis (EEA) technique*

Accordingly, the first paragraph of the "Results" (page 8, line 8-15) was added to the subsection (1).

In subsection (2), we provided additional data regarding the useful applications of this animal model as requested by the editor and reviewers. The details of this subsection will be explained further in the section of [Comment] 4 (see below).

As recommended by editor, we moved all the description of "SSA" and "EEA" anastomotic technique (page 6, line 1-9) that previously described in the section of "Materials and Methods" to "subsection (3)" of the "Results" section. This subsection (3) still contains the original results as written on "page 9, line 1-6" of our previous manuscript.

2. In "Materials and Methods" section, subsection "Surgical procedures"; as we moved the description of "SSA" and "EEA" anastomotic technique (page 6, line 1-9) to the section of "Results", in order to guide the readers, we added the sentence with parenthesis "(see the "Results" section for the comparison of these two methods in details)." after the last sentence previously written on page 6, line 15.

[Comment] 2. Subfigures of Fig 1, 2, 3, 4 and 6 should be merged to produce a complete picture in .JPEG or TIFF format, respectively.

[Answer] We appreciate the reviewers' suggestion on managing of figures.

As we modified the contents in "Materials and Methods" and "Results", consequently, all figures and tables were reordered. Subfigures of each figures were merged into one complete picture in .TIFF format.

The changes in the order of figures are as follow; ("→" = became)

- (New) Figure 1; Figure 1A was removed. Figure 1B→1A, Figure 3A→1B, Figure 3B→1C
- (New) Figure 2; Figure 4A→Figure 2
- (New) Figure 3; Figure 4B→3A, Figure 4C→3B
- (New) Figure 4; Figure 6A→4A, Figure 6B→4B, newly added Figure 4C
- (New) Figure 5; Figure 1C→5A, Figure 1D→5B, Figure 2A→5C, Figure 2B→5D
- (New) Figure 6; Figure 6A, which modified from (old) Table 1, was added. Figure 5→6B

The figure legends were modified and reordered according to the figures.

[Comment] 3. Fig 5 and Tab1 should be merged to one figure.

[Answer] We feel thankful for the reviewer's comment on this subject.

We modified the original "Table 1" to bar graph, and renamed as Figure 6A.

The original Figure 5 (Bar graph compared operative time) was renamed as Figure 6B. Both graphs were merged into Figure 6 (6A & 6B).

[Comment] 4. Authors claim that the model may be used for evaluation of the efficacy of drug and cell administration. Authors had better add some functional experiments in the model.

[Answer] We appreciate this valuable comment from the reviewers. According to the scope of this study, which aimed to create a cecal pouch model that freed from fecal contamination, our results evidently showed a clear visualization inside of the isolated cecal pouch. Therefore, we scoped on the demonstrations of various applicable experimental trials to this animal model. With the feces-free environment of an isolated cecal pouch, a creation of an artificial ulcerative lesion and an application of the cultured small intestinal epithelial cells to an ulcerative lesion could be done easily.

Correspondingly, we provided additional data regarding the applications mentioned above to a revised version of this manuscript as follow;

- We added a new subsection of "*Cell preparations*" to the section of "Materials and Methods", which described the details about the cultured cells used in this study.
- In the "Results" section, we added a new subsection of "*Creation of an artificial ulcerative lesion on cecal pouch membrane*", which demonstrated the above-mentioned useful applications.
- We also provided a discussion regarded the results on this topic.

[Comment] 5. Grammar mistakes should be corrected.

[Answer] We appreciate the reviewer's comments for this manuscript. We revised and corrected the grammar mistakes. This manuscript has been improved by Nature publishing group language editing. <http://languageediting.nature.com/>

We appreciate your valuable comments on this manuscript.

We will resubmit as a revised manuscript to the *World Journal of Gastroenterology*.

We hope that this manuscript will be accepted for publication in the *World Journal of Gastroenterology*.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'M. Yamato', with a stylized flourish extending to the right.

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