

Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled "Correlation between invasive microbiota in margin-surrounding mucosa and anastomotic healing in patients with colorectal cancer" (NO. 50366). Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are marked in red in the paper. The main corrections in the paper and the responds to the reviewer's comments are as following:

Responds to the reviewer's comments:

Reviewer #1:

This study is very interesting. In this study, the authors explored the structure shift of microbiota in mucosa tissues adjacent to surgical margin, and evaluated the predictive ability of selected bacterial taxa for the impaired anastomotic healing.

Overall, this study is well designed and the results are very interesting. The methods were described in detail. The results are well discussed. The references are updated.

Minor comments: 1. The manuscript requires a minor language revision. There are some minor language polishing. 2. The figure 1 is too small. Please re-provide the images. 3. It seems the IRB statements are not included in the title page. Please add it.

1. Response to comment: The manuscript requires a minor language revision. There are some minor language polishing.

Response: Special thanks to you for your good comments. We have made correction

according to the Reviewer's comments.

2. Response to comment: The figure 1 is too small.

Response: Special thanks to you for your good comments. We have re-provided this image.

3. Response to comment: It seems the IRB statements are not included in the title page.

Response: Special thanks to you for your good comments. We have added the IRB statement in the title page.

Reviewer #2:

This is an interesting study. The study is well designed and the results are good. I only suggest to make a minor language editing. And the abstract should be edited.

1. Response to comment: I only suggest to make a minor language editing.

Response: Special thanks to you for your good comments. We have made correction according to your comments.

2. Response to comment: the abstract should be edited

Response: Special thanks to you for your good comments. We have re-written the Abstract.

Reviewer #3:

This is a very interesting and well performed study evaluating the structure shift of microbiota in mucosa tissues adjacent to surgical margin in patients who had

undergone radical resection for colorectal cancer. Impaired anastomotic healing is one of the major complications resulted from this procedure and the authors highlighted the importance of identifying factors able to predict the healing status of anastomoses. They found that the community structure of margin-surrounding mucosal microbiota was significantly different between the impaired-healing group and well-healing group and six bacteria species were found significantly correlated with anastomotic healing. The interesting conclusion of the study was that, among the species investigated, *Alistipes shahii*, *Dialister pneumosintes*, and *Corynebacterium suicordis* could be used as supplementary factors in the prediction of the healing status of anastomoses in the patients who received radical resection of colorectal cancer. The study is well designed and well written with clinical relevant conclusions and appropriate data supporting the results.

Response: Special thanks to you for your good comments.

We tried our best to improve the manuscript and made some changes in the manuscript. These changes will not influence the content and framework of the paper.

And here we did not list the changes but marked in red in revised paper.

We appreciate for Editors/Reviewers' warm work earnestly, and hope that the correction will meet with approval.

Once again, thank you very much for your comments and suggestions.