

Dear Reviewer #1,

Thank you very much for taking the time to review our manuscript entitled "Protective effect of appendectomy against the onset of ulcerative colitis: A case-control study" and for providing such thoughtful and constructive comments. We appreciate your efforts in helping us improve the quality of our work.

We have carefully considered each of your suggestions and have made the necessary revisions accordingly. Our responses to your specific points are outlined below.

Comment 1: Most foreign suggest that.... please replace it with.... Previous studies suggest that...

Response: I have revised this question in the manuscript and marked it in yellow.

Comment 2: I. with a higher proportion of E1 and a lower proportion of E3 lesions... What do E1 and E3 mean? II. Although your results showed that E2 was the highest extent of lesions of UC in the appendectomized group and E3 in the non-appendectomized group. revised it .

Response: I. I have supplemented this section with specific instructions in the "Study methods" section and have highlighted the manuscript in yellow.

II. I have revised this question in the manuscript and marked it in yellow.

Comment 3: This study provided an evidence that.... please replace it with.. This study provided evidence

Response: I have revised this question in the manuscript and marked it in yellow.

Comment 4: Added the % of patients mentioned in this paragraph.(before being diagnosed with UC, resulting in 43 cases in the appendectomized group and 270 in the non -appendectomized group).

Response: I have added the % of patients mentioned in this paragraph and marked it in yellow.

Comment 5: The modified Mayo score system was used to evaluate the disease activity of the disease..... remove redundancy of the word disease to be....(The modified Mayo score system was used to evaluate the activity of the disease).

Response: I have revised this question in the manuscript and marked it in yellow.

Comment 6: Results, Blood routine factors influencing the onset of UC: The dependent variable in this analysis was the diagnosis of UC, with a score of 1 indicating UC and 0 indicating non-UC move this paragraph to the Materials and Methods section.

Response: I have moved this paragraph to the Materials and Methods section and marked it in yellow.

Comment 7: Age analysis of patients with UC in the appendectomized and non-appendectomized groups: I. Patients with UC were divided into the appendectomized group (43 cases) and the non-appendectomized group (270 cases). ..Again add the % of these patients. II. . Eight patients with UC had undergone appendectomy before the age of 20 years....Again add the % of these patients.

Response: I have added the % of patients mentioned and marked it in yellow.

Comment 8: Why do you think that the UC has a greater proportion of Han patients and patients residing in cities for a long time?

Response: In our study, more UC patients lived in cities for a long time, which is consistent with the findings of most studies. It may be related to the difference in lifestyle between people living in cities and those living in rural areas. Current research has shown that some factors play a more important role in the morbidity of urban patients than rural patients in China, such as psychological stress and fatigue. Meanwhile, Some environmental factors of urbanization and industrialization are also closely related to UC, such as a western diet with high red meat, fatty foods and refined sugars. In our study, the number of Han patients with UC (159, 50.8%) were slightly higher than those of ethnic minorities (154, 49.2%), which may be related to the distribution of different ethnic groups in the area.

Comment 9: Please discuss, Why the onset age of UC in women is significantly different than in men.

Response: We analyzed men and women with UC and found no significant difference in onset age between men and women. We added Table 4 to reflect this part of the results.

Comment 10: Please discuss. What is the difference between the severity of UC and the scope of lesions between sexes?

Response: We analyzed men and women with UC and found no significant difference in severity of UC and the scope of lesions between men and women. We added Table 4 to reflect this part of the results.

Comment 11: Would you recommend appendectomy for families with a history of UC? or Would you recommend a regimen of diets or therapies to decrease the percentage of UC? Add the limitation of this survey study.

Response: Multicenter, large-scale, prospective, randomized controlled studies are still needed to further clarify the indications for appendectomy in patients with UC. The limitation of this study is that it is a small sample, single center study.

In addition to the specific changes outlined above, we have also carefully reviewed the entire manuscript for clarity, consistency, and adherence to journal guidelines. The modified sections were marked in yellow.

We would like to express our gratitude once again for your valuable feedback.

We believe that your suggestions have significantly strengthened our manuscript. Please let us know if you have any further comments or suggestions, or if there are any additional changes you would like us to consider.

Thank you for your time and consideration, and we look forward to your feedback on our revised manuscript.

Best regards,

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