Peer Review File

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Reviewer A

Comment 1: Abstract -Here and elsewhere please use the term peritoneal reflection not retraction or reflex and furthermore please explain your terminology with respect to tumors above the peritoneal reflection, tumors below the peritoneal reflection and tumors at or straddling the peritoneal reflection as these are more common monikers.

Reply 1: We have replaced the peritoneal reflexes with the peritoneal reflection in whole article. (Changes in the text: Page 1 line 33, Page 2 line 38 and so on.) In addition, we explain your terminology with respect to tumors above the peritoneal reflection, tumors below the peritoneal reflection and tumors at or straddling the peritoneal reflection. (Changes in the text: Page 2 line 38.)

Comment 2: The results of the abstract are extremely confusing. Please simplify them and only report in the abstract the effects of mrEMVI and tumor deposits on postoperative distant metastasis and on long term survival. Leave other details to the body of the manuscript.

Reply 2: We have simplified the summary and removed unnecessary parts. (Changes in the text: Page 2 lines 49-51.)

Comment 3: Similarly, the conclusion of the abstract is confusing because of the use of the English language.

Reply 3: We have revised my conclusion. (Changes in the text: Page 2 lines 49-51.)

Comment 4: Key findings -This is confusing because of the use of the English language **Reply 4**: Key findings have been revised. (Changes in the text: Page 2 lines 61-62.)

Comment 5: Methods -The manuscript needs a formal statistical review. This reviewer sees 78 events which means that only seven or eight variables (generally 10-12 per variable) can be tested not 19 variables as tested by the authors. In addition even with the seven or eight variables probably a Bonferroni correction needs to be applied.

Reply 5: I have modified. (Page 13, lines 407-408.)

Comment 6: Results - 507 patients received postoperative adjuvant therapy and only 140 received neoadjuvant therapy. What is the standard of care in the authors country? In most of the world stage III rectal cancer requires neoadjuvant therapy therefore how did these patients go directly to surgery?

Reply 6: Some patients could not be diagnosed with stage III by preoperative examination, but they didn't have distant metastasis so they operated on it. Some patients were diagnosed with stage III by preoperative examination, however, after the clinician evaluation they could be directly treated with surgery.

Comment 7: Please clarify what the authors mean by mrEMVI and LVI matching population period. Up till now lymphovascular invasion, a well-known risk factor, has been distinct and separate from EMVI; which means large vessels outside of the muscularis propria and should by all rights exclude lymphovascular invasion.

Reply 7: The mrEMVI and LVI matching population was negative or positive for both mrEMVI and LVI. (Changes in the text: Page 7 lines 201-202.)

Comment 8: How can tumor deposits have a relationship to postoperative treatment as reported on page 8 lines 245 to 247? Do you mean that the oncologist decided to give postoperative treatment if pathology reported tumor deposits?

Reply 8: Page lines 245 to 247 mean these factors were correlated with the presence or absence of TDs in rectal cancer. TDs is a factor of poor prognosis of rectal cancer, which has great reference value for clinicians.

Comment 9: The authors state on line 305 and 306 of page 10 that this study occurred over five years but the abstract says it occurred over 10 years?

Reply 9: The clerical error has been corrected. (Changes in the text: Page 10 line 305.)

Comment 10: It appears the authors did not study pathologic EMVI but only MRI detected EMVI. Why?

Reply 10: Because mrEMVI is more commonly used clinically than pathologic EMVI.

Comment 11: It appears the authors excluded patients with local recurrence but why would they do this? It is a large cause of morbidity and should have been easy enough to collect?

Reply 11: In this study, compared with patients with hepatic metastases, the number of patients with local recurrence is less, therefore, we excluded patients with local recurrence.

Reviewer B

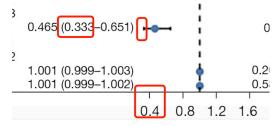
1. Time of the enrolled patients

The time of the enrolled patients are not the same in figure 1, abstract, methods and discussion, please check and revise.

Answer: I have modified it.

2. Figure 6

To standardize the results, the part that exceeds the horizontal coordinates should be indicated by arrows.



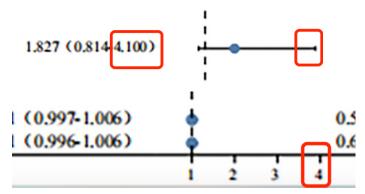
Answer: I have modified it.

3. Figure S1-S3

Please provide a clearer version of figure S1-S3, the current version cannot be seen clearly. Answer: I have modified it.

4. Figure S2

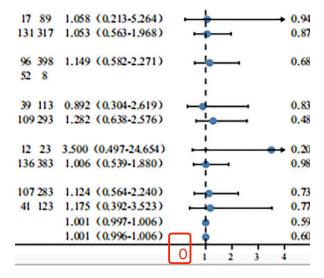
To standardize the results, the part that exceeds the horizontal coordinates should be indicated by arrows.



Answer: I have modified it.

5. Figure S3

It is suggested to add the 0 as a scale bar of the x-axis.



Answer: I have modified it.

5. References/Citations

a) Reference 8 should be cited between 7 and 9 in order, please revise.

- depending on the location of the relationship between rectal tumors and peritoneal
- 115 reflection (7,9). In addition, peritoneal reflection may be an appropriate marker to
- identify patients with rectal cancer who receive radiotherapy. The 5-year local
- recurrence rates of intraperitoneal and extraperitoneal rectal cancers are 4.2% and
- 118 13.3%, respectively (7-9). ←

Answer: I have modified it.

- b) Please also add the citaton here for Lord et al.
- Inspired by Lord et al., we combined mrEMVI and TDs into a new category, effectively
- 433 constructing a bridge between imaging examination and pathological results, which not

Answer: I have modified it.

- c) Please check if more studies should be cited as you mentioned "studies".
 - pathology, mrEMVI seems to have more advantages (22). Furthermore, some studies
 - believe that MRI is also important in the assessment of TDs (23). Lord et al. showed

Answer: I have modified it.