

Peer Review File

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Reviewer A

Comment 1: It would be interesting to know the total number of patients treated during the study period to have a better understanding of external validity.

Reply 1: **Thank you very much for your advice. A total of 145 patients were enrolled in our study, while 39 patients were eliminated due to lack of follow-up or preoperative urogenital dysfunction, and the remaining 106 were separated into two groups based on whether received nCRT or not (Figure 1). Please review!**

Reply 1: Figure 1 was added to show the total number of patients.

Comment 2: The small groups are bothersome, it is unlikely to detect outcome differences in these small groups. Did you do a power calculation prior to the study?

Reply 2: **Thank you very much for your suggestion. In our study, we employed t-test, χ^2 or Fisher's exact test and logistic regression. For the various test procedures listed above, we estimated the power calculation, which ranged from 0.817-0.833.**

Comment 3: The conclusions are not justified. The study is clearly underpowered for that comparison.

Reply 3: **Thank you so much for your kind suggestion. A total of 106 patients who underwent TME+LLND surgery for mid-low rectal cancer were separated into two groups based on whether they had received nCRT (n = 51) or not (n= 55) in this study. In conclusion, when compared to TME+LLND alone, nCRT with TME+LLND was not linked with a significantly higher rate of urogenital dysfunction. In addition, the distance between the tumor and the anal margin was linked to the occurrence of urine failure, and age was an independent predictor of male sexual dysfunction. Our original writing, however, contains some ambiguity.**

And this is a retrospective single-center small sample study with numerous limitations and selection bias, as described in the limitations section. In the future, a multi-center study with a large sample size will be required to back up our findings. We've made another adjustment for your approval. Once again, thank you!

Changes in the text: We have modified our text as advised (see Page 3, line 2;Page 14, line 5;page 13, line19)

Comment 4: Why don't do a sexual disfunction on the female group also?

Reply 4: **Thank you so much for your suggestions. This is an excellent suggestion. Because women are less likely than men to give information to their physician about difficulties relating to their sexuality, very few studies have looked at sexual dysfunction in female patients. Similarly, Chinese women are too hesitant to comply well with questions about sexual dysfunction during follow-up due to cultural pressures. Therefore, similar to previous studies(Ann Surg. 2007 Jan;245(1):80-7.;Eur J Surg Oncol. 2016 Dec;42(12):1851-1858.), our study excluded sexual function analysis in female patients.**

Changes in the text: We describe the this limitation in Page13, line 22.

Reviewer B

Comment 1: Retrospective study.

Reply 1:**Thank you very much for your comments.We have employed univariable and multivariable analyses to minimize selection bias, but it was difficult to avoid it completely because of the retrospective study. This is a limitation of our study, and we want to conduct a large-scale multi-center prospective studies in the future to corroborate our findings. Thank you!**

Changes in the text: We describe this limitation in page 13, line19.

Comment 2: Relatively limited number of patients that are divided in subgroups according to the surgical procedure.

Reply 2: **Thank you very much for taking the time to review and critique my work. As we all know, the three main surgical procedures for rectal cancer are Miles, Hartmann, and Dixon. In our study, 48 patients underwent Dixon's procedure, 55 patients underwent Miles's procedure, and only 3 patients underwent Hartmann's procedure, with a comparatively small number of people in Hartmann's subgroup. This may be due to the following reason. Our center's indications for Hartmann surgery are as follows: 1) rectal cancer has broad pelvic dissemination; the main tumor can be removed, but local recurrence is more likely. 2) Obstructive rectal cancer: the original tumor can be removed, but the proximal intestinal lumen is obstructed with excrement, making one-stage anastomosis impossible. However, patients with distant metastases at the time of diagnosis, for example significant pelvic dissociation, were excluded from this study. Hence, Dixon or Miles was performed on the majority of patients, and only one patient in nCRT+ group and two patients in nCRT- group underwent in this study. Thanks again!**

Comment 3: There is no standardisation of the chemoradio-therapy technique.

Reply 3: **Thank you so much for your comments. The chemoradio-therapy regimens in this study were not special, and they were all first-line chemoradio-therapy regimens commonly used for colorectal cancer, that is, radiotherapy (50Gy/25f/2Gy) was given in combination with capecitabine on all days of radiotherapy in the nCRT+ group. However, due to economic and family reasons, some patients refuse preoperative chemoradio-therapy. Therefore, we divided patients into two groups based on whether they had undergone nCRT (n =51) or not (n= 55). Please review!**

Changes in the text: We have modified our text as advised (see Page 5, line 23).

Comment 4: Why female patients were excluded from assessment of postoperative sexual dysfunction?

Reply 4: **Thank you very much for your advice. Because women are less likely than men to tell their doctor about problems with their sexuality, few studies have looked at sexual dysfunction in female patients. Due to societal influences, Chinese women are also reticent to answer questionnaires about sexual function during follow-up. Therefore, similar to**

previous studies(Ann Surg. 2007 Jan;245(1):80-7.;Eur J Surg Oncol. 2016 Dec;42(12):1851-1858.), our study excluded sexual function analysis in female .

Changes in the text: We describe the this limitation in Page13, line 22.