

**April 24, 2020**

**RE: World Journal of Gastrointestinal Surgery reference: 53646**

**Title: Neutrophil-to-lymphocyte ratio at admission is a predictor of acute kidney injury in patients with gastrointestinal and hepatobiliary surgery in surgical intensive care unit**

Dear Dr. Na Ma:

Thank you very much for your email dated April 12, 2020 in which you informed us that our manuscript has been reviewed and invited us to revise and resubmit the manuscript for further consideration. We also thank you for including the critiques from the referees that were very useful for improving our manuscript. We have carefully checked the manuscript and other materials according to the items of the checklist and Editorial Office's comments. The comments, our point-by-point responses to referees, and changes made in the manuscript (which are highlighted by red font) are listed in separate pages.

We sincerely hope the extensive changes made in the revised manuscript meet with your approval, therefore, our manuscript is now acceptable for publication in *World Journal of Gastrointestinal Surgery*. If there are any further questions, please do not hesitate to contact us.

Sincerely yours,

Rongqian Wu, MD, PhD

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Dear Dr. Wu,

## Responses to Reviewers' Comments :

### Reviewer #1:

**Authors showed that NLR at admission is an independent predictor of AKI in patients with gastrointestinal and hepatobiliary surgery. This report was interesting. But several issues remained unclear.**

We thank the referee for the positive comments on our study.

#### **1. The characteristics of surgery should be shown (i.e. emergent, disease).**

We have analyzed the characteristics of surgery. As shown in the following table, the percentage of emergency surgery was 19.5% in our cohort. The percentage of emergency surgery in the high-NLR group and low-NLR group were 21.0% and 16.8%, respectively. There was no difference in the percentage of emergency surgery between the two groups. The results have been incorporated in the revised manuscript.

Variables	Overall (n=282)	High-NLR group (n=181)	Low-NLR group (n=101)	P value
characteristics of surgery				0.398
Emergency surgery	55 (19.5)	38 (21.0)	17 (16.8)	
Non-emergency surgery	227 (80.5)	143 (79.0)	84 (83.2)	

#### **2. Authors showed that there is no difference in ICU mortality between high and low NLR. Overall survival should be shown to consider the significance of AKI.**

We appreciate this suggestion. Accordingly, we have analyzed the 28-day overall mortality of the patients' NLR levels. The result showed that 28-day overall mortality of high and low NLR groups was 30.4% and 24.8%, respectively. Statistical analysis showed no significant difference in mortality between the two groups. The result revealed that NLR at admission is an independent predictor of AKI, but it cannot predict overall mortality in patients with gastrointestinal and hepatobiliary surgery. The results have been incorporated in the revised manuscript.

### Reviewer #2:

**weaknesses and/or deficiencies in the manuscript?**

#### **1) Single center study 2) Small number of patients for confirmation conclusion**

We agree with the referee. There are several limitations in this manuscript. First, this is a single-center retrospective cohort study. The results might be influenced by selection bias, recall bias and some residual confounding. A further multiple-center

data was needed to clarify the relationship between NLR and the occurrence of AKI in patients with gastrointestinal and hepatobiliary surgery in surgical ICU. Additionally, the present study retrospectively analyzed the electronic medical records of 282 patients after gastrointestinal and hepatobiliary surgery in the surgical ICU. The conclusion is only based on a small number of patients. A further large sample size study is needed in the future. The above sentences have been incorporated in the limitation section of the revised manuscript.