

Peer Review File

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**Reviewer A:**

Comment 1: Line 347: ...But there was no difference in AST on POD0? But in your Table 2, there is a statistically significant difference in AST level between AKI and non-AKI group.

Reply 1: Thank you for your kind comment. In our Table 2, there is significantly different in AST level between two groups. But in multivariable logistic regression analysis, the level of AST was not an independent risk factor for the occurrence of AKI. When we described the result, we did not stipulate in case of the multivariable regression analysis.

Changes in the text: This sentence was revised to “Our present findings also documented the significant difference in AST and ALT on POD0 in patients with and without AKI. But in multivariable regression analysis, the level of AST was not the independent risk factor of AKI.”

Comment 2: longer periods of ICU stay (9.1 (3.8, 250 10.8) vs 4.5 (2.8, 5.6), P=0.002) and hospital stay (40.7 [27.3, 46.7] vs 49.8 [27.2, 251 71.2], P=0.189).. 40.7 days is shorter than 49.8 days, is this result correct? , if it is correct, how do you explain that non-AKI group stayed in the hospital longer?

Reply 2: Thank you for your kind comment. Patients with AKI have longer periods of ICU stay than patients without AKI. But about the length of hospital stay, the AKI group is shorter than the non-AKI group. This is a correct result. We consider this phenomenon may be due to the higher mortality of patients in the AKI group. And the length of hospital stay is the total stay time, including the time of follow-up check, so we think patients with AKI are more likely to have regular follow-up check.

Changes in the text: The sentence was revised to “But the hospital stay of AKI group was higher than non-AKI group (40.7 [27.3, 46.7] vs 49.8 [27.2, 71.2], P=0.189), despite the hospital stay not reaching significant statistical difference.” And in our discussion, we have explained the phenomenon in Line240-Line242.

Comment 3: Line 118: sever -->severe

Reply 3: Thank for your kind comment. This is our negligence.

Change in the text: The word “sever” has been revised to “severe”.

Comment 4: Line 313: reduce -->reduced

Reply 4: Thank for your kind comment.

Change in the text: The word “reduce” has been revised to “reduced”.

Comment 5: Line 295: accuracy-->accurate

Reply 5: Thank for your kind comment.

Change in the text: The word “accuracy” has been revised to “accurate”.

Comment 6: Line 35: severed -->served

Reply 6: Thank for your kind comment.

Change in the text: The word “severed” has been revised to “served”.

**Reviewer B:**

Comment 1: They must be differences in characteristics in patients who had myoglobin check and did not have myoglobin check in patient populations. Thus, please report the number and characteristics of all patients with liver transplantation; and compared characteristics of those who had myoglobin checked in cohort and did not have it check. The results of this study may be able to applied to only distinct patient characteristics but not all patients who undergo liver transplantation

Reply 1: Thank you for your kind comment. We quite approve of your suggestion on analyzing missing data. In our study, all patients undergoing liver transplantation were measured the level of myoglobin regardless of whether they met the including criteria. And there were 9 (6.4%) patients with missing different baseline data and they were also measured the level of myoglobin after LT immediately. We will supplement the missing data according to your suggestion, and we use the multiple interpolation method for missing data.

Change in the text: All statistical data, tables and figures have been revised according latest analysis in our study.

Comment 2: Did you perform/make some imputation on missing data and how much % missing data that were acceptable and included in your cohort?

Reply 2: We thank you for reminding us this important point.

Change in the text: We added a sample discussion about the sample size on line 200-203 in section “Sample size” of the revised manuscript.

**Line 200-203:**

Sample size

According to previous study, the incidence of AKI after LT was 46.7%. A sample of 110 was required at a significance level of  $\alpha = 0.05$ , with a power of 85% and allow for 10% missing data.

Comment 3: Can you perform cross-fold validation in your study?

Reply 3: Thank you for your kind comment. We agree with your suggestion very much, but due to the small sample size, our study was a preliminary study. This is a limitation in our study. So we plan to continue to collect relevant medical data in the follow-up study, and we will perform cross-fold validation in our next study.

Comment 4: Incidence of your AKI after liver transplantation is actually quiet in the lower incidence of reported incidence of 40.7% (95% CI: 35.4%-46.2%). PMID: 30884912. Please discuss for possible reasoning.

Reply 4: Thank you for your kind comment. The incidence of our AKI after LT was 38.3% in our study, but in the meta-analysis (PMID: 30884912), the incidence of AKI was reported as 40.7%. Our center is a liver transplantation center, and the technology is relatively mature. Moreover, all patients undergoing LT will be performed accurately postoperative management in ICU, so the

incidence of AKI is lower.

Change in the text: We added a simple discussion about the comment on line 300-303.

**Line 300-303:**

The overall estimated incidence of AKI after LT was 40.8% (32). In our study, the incidence of AKI was 38.3% which was lower than reported previously. The reason was that our hospital is a liver transplantation center and the technology was relatively mature.

Comment 5: Do you use steatosis grafts and what severity have been used? that may have impacted incidence of AKI?

Reply 5: Thank you for your kind comment. The steatosis grafts may impact the incidence of AKI as previously reported. But to be honest, our study was conducted in a single center and department, donor information is temporarily unavailable. This also was an essential limitation for our study.

**Reviewer C:**

Comment 1: The introduction is too long and tiring, the same for the results, the authors should focus on what is most relevant.

Reply 1: Thank you for your kind comment.

Change in the text: The introduction and results were comprehensively revised on Line 77-119 and Line 204-246. Approximately 800 words were whittled down in the revised manuscript compared to the previous version.

Comment 2: The methodology does not inform the approval number by the Ethics Committee.

Reply 2: Thank you for your kind comment.

Change in the text: we have modified our text as advised (See Page 7, Line 129). approval number: 2021-科-55

Comment 3: On page 13 regression does not show the 95%CI.

Reply 3: Thank you for your kind comment.

Change in the text: we have modified our text as advised in the section “risk factors for AKI” (See Page 13, Line 260-274).

Comment 4: I did not find in the study at what time myoglobin was collected.

Reply 4: Thank you for your kind comment. The time collected myoglobin was on admission in ICU immediately.

Change in the text: The sentence “The first test result which measured after surgery immediately of serum myoglobin and procalcitonin (PCT) were also obtained.” was added to the Clinical data of the revised manuscript.

Comment 5: Authors should focus on the objective and demonstrate the results, discussion and introduction related to this objective.

Reply 5: Thank you for your kind comment.

Change in the text: We have carefully removed the redundant portions throughout the whole manuscript and the discussion was comprehensively revised on Line 292-409.