
Peer Review File

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Reviewer A

I praise the authors for their work, and I believe this article holds potential for publication. However, considering the current model, some revisions or adjustments may be necessary to ensure its suitability for publication. This study is well written and presents a good analysis examining the significance of ALBI grade in assessing postoperative complications after gastrectomy for patients with gastric cancer. However, several concerns arise from the presented information:

Title: The study appears to be a retrospective analysis utilizing a prospectively collected database. It is not a prospective study. ALBI grade didn't exist before 2015. Furthermore, the use of the term "prognosis" suggests an association with survival outcomes (overall or disease-free). To avoid confusion, the title should explicitly state that the study evaluates postoperative complications.

Reply: Thank you for the title suggested. The precedent version of the title has been replaced, becoming: High albumin-bilirubin grade predicts worse short-term complications in gastric cancer patients with metabolic syndrome: a retrospective study.

Changes in the text: line 1, page 1

1- The study does not specify which type of gastrectomy the patients underwent. As total gastrectomy tends to have more complications than subtotal, and D2 lymphadenectomy may complicate more than D1, it is essential to segregate the patient groups to make a meaningful comparison of postoperative complications.

Reply1: We sincerely appreciate your suggestions and comments. For this suggestion, we have added surgical methods for gastric cancer (line 100, page 4). Please forgive me for the inaccuracy in my previous statement.

Changes in the text: line 100, page 4

2- Although the complications were likely assessed using the Clavien Dindo classification, this is not explicitly mentioned in the text.

Reply2: Thank you for your suggestion. I have added the Clavien Dindo classification to the article

Changes in the text: line 150, page 6.

3- In Table 2, patients with different types of anastomosis (gastrojejunal and esophagojejunal) are combined into one group, which could lead to misleading results. These two types of anastomosis should be analyzed separately.

Reply3: Thank you for your suggestion. In our clinical records, we analyzed patients who underwent subtotal gastrectomy, but did not select patients who underwent total gastrectomy. We have made modifications to this point

Changes in the text: line 100, page 4.

4- Table 2 mentions "unexplained high fever" without providing a clear definition or explanation of the term. It is uncommon for surgeons not to identify the cause of a fever during the postoperative period.

Reply4: Thank you for your suggestion. We have added the definition of unexplained high fever. Although unexplained high fever is not common in surgery, it is sometimes difficult to identify the site of infection. Therefore, we have included this project in the complications.

Changes in the text: line 159, page 6.

5- The ROC curve in the study exhibits a low area under the curve, suggesting limited discriminatory power. This should be explicitly stated in the text. If the curve even crosses the diagonal line, indicating randomness, it raises doubts about the validity of the results.

Reply5: Thank you for your suggestion. In clinical research, the area under the curve of ROC is usually low due to insufficient sample size or incomplete research methods. However, in this study, the P of the ROC curve was less than 0.05, indicating that the use of ALBI to verify postoperative complications is reliable. Although the area under the curve is relatively low, we still believe that it has clinical significance.

Changes in the text: None

6- The implication of metabolic syndrome in complications should be better elucidated. Instead of categorizing variables as yes or no, a more detailed description of DM, hypertension, and dyslipidemia, including the number of medications used, insulin dependency, and duration, would provide deeper insights.

Reply6: I'm sorry, although we know that diabetes, hypertension and dyslipidemia should be described in more detail, we did not follow up these indicators in detail due to time constraints. This may have led to insufficient depth of our insights. In the future, we will conduct more detailed follow-up and reporting.

Changes in the text: None

7- Data on length of hospital stay, readmission rates, and reoperation rates are crucial and should be included to provide a comprehensive understanding of patient outcomes after gastrectomy.

Reply7: We are sorry that due to time constraints, we did not provide detailed records and follow-up of these indicators. In the future, we will follow up and report on the long-term prognosis of gastrectomy.

Changes in the text: None

In conclusion, this study shows promise, but it requires some improvements to be considered suitable for publication.

Reviewer B

This report examines the short-term results of ALBI and colorectal cancer. I have a few questions.

1. Please state what event was the ALBI cutoff value calculated from the ROC curve.

Reply1: Thank you for your suggestion. When the ALBI grading is set to this value, the specificity and sensitivity of using ALBI grading to determine short-term postoperative complications in patients are optimal.

Changes in the text: None

2. If an ROC curve is shown, please also include the AUC.

Reply2: Thank you for your suggestion. I have added the AUC value (0.551)

Changes in the text: line 181, page 7

3. Please define postoperative complications: how many or more of the Clavien-Dindo classification?

Reply3: Thank you for your suggestion. I have added the postoperative complications to the article.

Changes in the text: line 155, page 6.

4. I do not know which factors were used in the multivariate analysis. Please provide 95% CIs and P-values for the factors that were not significantly different.

Reply4: In the multivariate analysis, I added ALBI grade[OR =2.544, 95% confidence interval (CI): 1.676 - 3.862, P=0.001], metabolic syndrome(OR =2.364, 95% CI: 1.358 - 3.225, P=0.197), age(OR =1.644, 95% CI: 1.378 - 2.042, P=0.170), sex(OR =1.153, 95% CI: 0.708 - 1.544, P=0.656), BMI (OR =2.568, 95% CI: 1.557 - 4.235, P=0.001), hypertension(OR =1.675, 95% CI: 1.093 - 2.567, P=0.018) , diabetes(OR =1.559, 95% CI: 1.021 - 2.354, P=0.315), laparoscopic surgery(OR =1.789, 95% CI: 1.033 - 2.534, P=0.678), TNM grade(OR =1.220, 95% CI: 1.061 - 2.453, P=0.464), hypoproteinemia(OR =1.253, 95% CI: 0.745 - 1.743, P=0.475), anemia, tumor differentiation(OR =1.335, 95% CI: 0.953 - 1.753, P=0.743) and tissue grade(OR =1.753, 95% CI: 1.021 - 2.532, P=0.211).

Changes in the text: None

5. You mention long-term outcomes in your main findings, but can you mention long-term prognosis in this study?

Reply5: We are sorry that due to time constraints, we did not provide long-term outcomes. In the future, we will follow up and report on the long-term prognosis of gastrectomy.

Changes in the text: None

6. Wouldn't it be simpler and better to use BMI, which showed significant differences in multivariate analysis, to examine with ALBI values? What is the significance of using metabolic syndrome?

Reply6: In our view, metabolic syndrome not only includes the patient's BMI, but also other metabolic indicators in the human body, which reflects the overall metabolic status of the patient from one side, rather than just changes in body size. Compared to using BMI alone, metabolic syndrome is more representative in terms of validating ALBI values from a holistic perspective.

Changes in the text: None

7. Is there any significant difference between albumin and bilirubin alone? Please analyze. Is there any value in using both in the formula?

Reply7: Between albumin and bilirubin, individual items do not indicate significant differences. However, when the formula connects the two, we can comprehensively assess the patient's liver function reserve, which in turn affects the severity of postoperative complications in patients undergoing gastrectomy. This indicates that the formula can connect albumin and bilirubin together, providing a novel perspective on the prognosis of patients.

Changes in the text: None