Peer Review File

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Reviewer A

General Comments:
The manuscript entitled "The association of the systemic immune-inflammation index and stent thrombosis in myocardial infarction patients after coronary stent implantation-a retrospectively study" was reviewed.
Although this paper is well performed, there are some issues that merit further data as indicated in the Specific Comments.
Reply 1: We thanks for you positive feedback. We have tried our best to revise the manuscript.

Specific Comments:
1. The time of onset of stent thrombosis identified in this study should be presented. This is because the pathogenesis of acute, subacute, late, and very late stent thrombosis is different.
Reply 1: We have added the time in the method section accordingly. Page 4, line 102-103.

2. How were the cutoff value of stent number (4), stent diameter (3.4), stent length (15), D-Dimer (0.5), and systemic immune inflammatory index (636) shown in Table 1 determined?
Reply 2: We have added it in the method section. Page 5, line 144-146.

3. In table 1, information on the type of drug-eluting stent (DES) implanted, stent-artery ratio at DES implantation, status of dual antiplatelet therapy at follow-up, platelet count, neutrophil count, and lymphocyte count should be included as factors related to stent thrombosis, based on previous reports.
Reply 3: We have added related version in the revised manuscript. See page 12-13, table 1.

Reviewer B

The paper titled "The association of the systemic immune-inflammation index and stent thrombosis in myocardial infarction patients after coronary stent implantation-a retrospectively study" is interesting. The systemic immune-inflammation index was associated with the development of stent thrombosis in patients with myocardial infarction after coronary stent implantation. However, there are several minor issues that if addressed would significantly improve the manuscript.

1) It is recommended to include the causes and management measures of stent thrombosis after coronary stent implantation for myocardial infarction.
Reply 1: We have added in the method section. Page 5, line 123-124.

2) Can delayed stent implantation reduce the burden of thrombus during the initial coronary stent implantation? What effect does it have on improving microvascular reperfusion? It is recommended to add relevant content.
Reply 2: We have added it in the discussion. Page 8, line 227-236.

3) This study is a retrospective analysis, which is likely to cause some deviations in the results. It needs to be further confirmed by multi-center clinical trials.
Reply 3: We have discussed it as a limitations in the discussion section. Page 8, line 227-236.

4) The introduction part of this paper is not comprehensive enough, and the similar papers have not been cited, such as "COVID-19 pandemic and stent thrombosis in a post percutaneous coronary intervention patient-a case report highlighting the selection of P2Y12 inhibitor, Cardiovasc Diagn Ther, PMID: 32968646". It is recommended to quote the articles.
Reply 4: We have added. See reference 9.

5) Please analyze the predictive value of the systemic immune-inflammation index on the main unconscionable vascular events in the hospital after coronary stent implantation in patients with acute myocardial infarction based on the content of this study.
Reply 5: We have added it as a limitation in the discussion section. Page 8, line 227-236.

6) In the introduction of the manuscript, it is necessary to clearly indicate the knowledge gaps and limitations of prior study and the clinical significance of this study.
Reply 6: We have revised the introduction. Page 3, line 82-84.

7) The number of patient samples in this study is too small, and a large sample study should be added for verification.
Reply 7: We have discussed it as a limitation in the discussion section. Page 8, line 227-236.

Reviewer C

First of all, the clinical research design of this study should be clearly and accurately described in the title, i.e., a retrospective cohort study. My major concern for this study is the unclear focus of this study. Although in the title and elsewhere, it was described as "association of the systemic immune-inflammation index with stent thrombosis" but in the analysis and results,

the authors analyzed factors associated with stent thrombosis with systemic immune-inflammation index as one of the two factors.
Reply 1: We have revised the title accordingly. Page 1, line 3-5.

Second, abstract needs some revisions. The background need to describe the high risk of stent thrombosis in MI patients after coronary stent implantation and have comments on the knowledge gaps on the factors associated with stent thrombosis in this patient population. The methods need to describe the inclusion of subjects, the assessment of baseline factors including systemic immune-inflammation index, follow up procedures, and diagnosis of stent thrombosis. The results need to first summarize the clinical characteristics of the study sample, and OR and accurate P values of the identified factors. The conclusion should not repeat the main findings again and please have comments for the clinical implications of the findings.
Reply 2: We thanks for your positive feedback. However, due to the limitations of the words (no more than 350 words in the abstract, now it was 349), we failed to added more words.

Third, in the introduction of the main text, the authors need to have a review on the incidence rates of stent thrombosis in MI patients after coronary stent implantation and its associated factors, have comments on the limitations and knowledge gaps of prior studies, and explain the potential clinical significance of the focus on systemic immune-inflammation index. The STARD reporting checklist is not suitable for this study, because this is not a predictive accuracy study. Even the predictive accuracy as indicated by AUC, is also poor. The authors should consider STROBE checklist.
Reply 3: We have revised the introduction accordingly. Page 3, line 80-84.

Fourth, the methodology of the main text needs to clearly describe the clinical research design, sample size estimation, details of follow up, and diagnostic criteria for stent thrombosis. Because the sample of stent thrombosis is very small, the authors need to consider the concerning statistical power of this study. In statistics, the authors only used ROC curve to determine the cut-off value of the index, and it is problematic to describe the predictive accuracy. If the authors focused on predictive accuracy, the current study is a failed study of predictive accuracy study. The purpose of the analysis is to identify associated factors, not the independent association of the systemic immune-inflammation index with stent thrombosis.
Reply 4: We have discussed it as a limitation in the discussion section. Page 8, line 227-236.

Reviewer D

1. Please check the below hospital name in your whole manuscript. In your title page, it's "Wuhan University Hospital". Which one is correct? Please unify.

40 **Methods:** A total of 887 myocardial infarction patients admitted to the Hospital of
41 Wuhan University from January 2019 to June 2021 were included. All of the patients

122 the Declaration of Helsinki (as revised in 2013). The study was approved by the
123 Hospital of Wuhan University's Ethics Committee (No. 20220042). Individual consent

Reply 1: We have corrected the hospital name. We thanks for your patience.

2. Table 1:

Please check the unit below in your Table 1 and 2. Which one is correct?

Stent length (cm), n (%)	
≥15	15 (55.56)
<15	12 (44.44)

Total stent length (mm)	0.595	0.092	0.495–0.696
D–dimer (mg/L)	0.561	0.283	0.447–0.674

Reply 2: We have corrected it.