



Reply to the letter to the editor: [Letter by Yue J, et al. regarding article 'The relationship between atherogenic index of plasma and no-reflow in patients with acute ST segment elevation myocardial infarction who underwent primary percutaneous coronary intervention']

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Received: 28 May 2020 / Accepted: 13 June 2020 / Published online: 24 October 2020
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Abstract

We have read with a great pleasure the letter of Yue J, et al. to the editor about our recent study which showed an association between atherogenic index of plasma and no-reflow in patients with ST segment elevation myocardial infarction who underwent primary percutaneous coronary intervention. Yue J, et al. raises concerns about the timing of blood collection, whether if it was taken before the emergency intervention or after. In emergency department, while performing intravenous line, the blood samples for blood biochemistry and whole blood count were also taken from the patients. Another concern of the author was the timing of left ventricular ejection fraction measurement (LVEF). LVEF measurements were obtained before the emergency intervention and some were after the intervention, but before the patient discharge. In our study we included the LVEF in our model, because we could not ignore that modeling which was comprehensively used in recent studies on relation of LVEF and no-reflow. We designed this statistical model not only for the no-reflow prediction but also for the explanation of the no-reflow pathophysiology. We thank the authors' letter for pointing out these issues that we hope to have addressed.

Dear Editor,

We have read with a great pleasure the letter of Yue et al. [1] to the editor about our recent study [2] which showed an association between atherogenic index of plasma (AIP) and no-reflow in patients with ST segment elevation myocardial infarction (STEMI) who underwent primary percutaneous coronary intervention.

Yue J, et al. raises concerns about the timing of blood collection, whether if it was taken before the emergency intervention or after. In emergency department, while performing intravenous line, the blood samples for blood biochemistry and whole blood count were also taken from the patients. By this way, there will be no time delay for the patient to reach catheterization laboratory. This is our routine management of STEMI patients.

Another concern of the author was the timing of left ventricular ejection fraction (LVEF) measurement. We fully share his point of view about the timing of measurement. In retrospectively data collection process, we realized that in some patients LVEF measurements were obtained before the emergency intervention and some were after the intervention, but before the patient discharge. A meta-analysis which collects the data from 27 retrospective and prospective studies revealed that increasing risks of no-reflow were also associated with decreased LVEF [3]. So, in our study we included the LVEF in our model, because we could not ignore that modeling which was comprehensively used in recent studies on relation of LVEF and no-reflow. Also, 33

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(4.3%) of our patients had a previous acute coronary syndrome history. We designed this statistical model not only for the no-reflow prediction but also for the explanation of the no-reflow pathophysiology. We thank the authors' letter for pointing out these issues which we hope to have satisfactorily addressed.

Muhammed Süleymanoğlu, on behalf of all co-authors.

Funding The authors received no financial support for the research, authorship, and/or publication of this article.

Compliance with ethical standards

Conflict of interest The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

1. Yue J, He S et al (2020) Letter by Yue J, et al. regarding article "The relationship between atherogenic index of plasma and no-reflow in patients with acute ST segment elevation myocardial infarction who underwent primary percutaneous coronary intervention". *Int J Cardiovasc Imaging* 36:1187–1188
2. Suleymanoglu M, Rencuzogullari I, Karabag Y, Cagdas M, Yesin M, Gumusdag A et al (2020) The relationship between atherogenic index of plasma and no-reflow in patients with acute ST-segment elevation myocardial infarction who underwent primary percutaneous coronary intervention. *Int J Cardiovasc Imaging*. <https://doi.org/10.1007/s10554-019-01766-8>
3. Fajar JK, Heriansyah T, Rohman MS (2018) The predictors of no reflow phenomenon after percutaneous coronary intervention in patients with ST elevation myocardial infarction: a meta-analysis. *Indian Heart J* 70(Suppl 3):S406–S418

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