International Journal of Cardiology 297 (2019) 140

Contents lists available at ScienceDirect

International Journal of Cardiology

journal homepage: www.elsevier.com/locate/ijcard

Letter to the Editor

The circulating HOTAIR/miR-1: A novel and sensitive biomarker of myocardial infarction

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ARTICLE INFO

Article history:
Received 25 July 2019
Received in revised form 4 August 2019
Accepted 12 August 2019

Keywords:
HOTAIR
MiR-1
Myocardial ischemia/reperfusion injury
Biomarker

Dear Editor,

Recently, Mayer et al. reported that the low circulating miR-1 level was associated with all-cause or cardiovascular mortality, but its predictive power disappeared when entered into one regression model together with miR-19 [1]. However, we found that the increased circulating miR-1 level was a novel and sensitive biomarker of acute myocardial infarction (AMI).

Currently, it has been revealed that the increased plasma miR-1 level after AMI is closely related to infarct volume [2]. Meanwhile, it has been identified that the circulating miR-1 level is a credible biomarker for the diagnosis of AMI and for prognosis post infarction [3]. These indicated that the circulating miR-1 level maybe a reliable biomarker and treatment for myocardial ischemia/reperfusion injury (MI/R). In addition, long noncoding RNAs (lncRNAs) are a class of RNA molecules that have diverse regulatory functions during MI/R. Gao et al. uncovered that the cardioprotective function of HOX antisense intergenic RNA (HOTAIR) is partly based on the negative regulation of miR-1 and the plasma concentration of HOTAIR may serve as a biomarker for AMI diagnosis [4]. These suggested that the HOTAIR/miR-1 axis in plasma maybe a reliable biomarker and treatment for MI/R.

Therefore, we speculated that the circulating HOTAIR/miR-1 axis maybe a potential biomarker and risk factor predictor for MI/R injury. However, this speculation needs to be further verified by experimental evidence.

Conflict of interest

None.

Sources of funding

None.

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https://doi.org/10.1016/j.ijcard.2019.08.031