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Letter to the editor

Cardiac involvement of COVID-19: Looking forward to novel discoveries and clinically valuable evidence☆

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We thank the editors and researchers for their interest and comments in our recently published study [1].

Since the Coronavirus Disease-2019 (COVID-19) outbreak, several clinical studies [1–3] have discovered the evidence of myocardial injury as significant elevation of cardiac troponin among the infected patients, especially those required intensive care. However, it is inconclusive whether myocardium was injured directly by SARS-CoV-2 infection. From our experiences, myocardial injury is almost in COVID-19 patients of severe and critical types and/or with underlying cardiovascular diseases [1–3]. Once myocardial injury is present, fatal risk during hospitalization significantly increases. Thus, for improving clinical management and reducing mortality, the changes of cardiac marker levels and echocardiographic presentations should be closely monitored for these patients.

Currently, the number of infected people has reached 3.6 million, while cases with myocarditis were extremely rare in the published clinical studies and case reports. Of note, two cases with suspected myocarditis underwent endomyocardial biopsy: molecular analysis of one case [4] showed absence of SARS-CoV-2 genome within myocardium and pathology of the other case [5] presented very low-grade myocardial inflammation, even clinical manifestations were similar to fulminant myocarditis. In line with our study [1], although SARS-CoV-2 infection can be detected in myocardial tissue, cardiac involvement of COVID-19 is possibly more integrated with systemic disorders.

COVID-19-related myocarditis should be reviewed cautiously and thoroughly, including pathology and biopsy findings. Clinical investigation of SARS-CoV-2 myocarditis should focus on young patients without any underlying cardiovascular diseases. We look forward to novel discoveries and clinically valuable evidence regarding to cardiac involvement of COVID-19.

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Declaration of Competing Interest

The authors report no relationships that could be construed as a conflict of interest.

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☆ All the authors take responsibility for all aspects of the reliability and freedom from bias of the data presented and their discussed interpretation.

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