

PEER-REVIEW REPORT

Name of journal: *World Journal of Cardiology*

Manuscript NO: 65981

Title: The Role of Cardiac MRI in Troponinemia Syndromes

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03366604

Position: Editorial Board

Academic degree: PhD

Professional title: Associate Professor

Reviewer's Country/Territory: United States

Author's Country/Territory: Australia

Manuscript submission date: 2021-03-18

Reviewer chosen by: Ze-Mao Gong

Reviewer accepted review: 2021-08-01 19:33

Reviewer performed review: 2021-08-13 16:23

Review time: 11 Days and 20 Hours

Scientific quality	☐ Grade A: Excellent ☐ Grade B: Very good ☒ Grade C: Good ☐ Grade D: Fair ☐ Grade E: Do not publish
Language quality	☐ Grade A: Priority publishing ☐ Grade B: Minor language polishing ☒ Grade C: A great deal of language polishing ☐ Grade D: Rejection
Conclusion	☐ Accept (High priority) ☐ Accept (General priority) ☒ Minor revision ☐ Major revision ☐ Rejection
Re-review	☒ Yes ☐ No
Peer-reviewer	Peer-Review: ☒ Anonymous ☐ Onymous

statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This is a review article on the application and role of cardiac MRI on various troponitis conditions, including myocardial infarctions, Takotsubo cardiomyopathy, myocarditis, and cardiac symptoms related to Covid-19 and high endurance athletics. The paper provides some potentially useful and up-to-date information for the topic. I have the following specific comments: 1) In the “Myocardial infarction” section, it is written “Study delay for at least a week can be considered ...”. Please state that the delay is with respect to myocardial infarction. 2) In the “Covid-19 related cardiac dysfunction” section, please change the word “signal” to “values” in the sentence “T1-mapping and extracellular volume (ECV) also demonstrated increased signal”. 3) In the “High endurance athletes and the Athlete’s heart syndrome” section, it is mentioned that “increased left ventricular mass is a hallmark of AH” and that “cardiac magnetic resonance imaging can also provide accurate morphology assessment”. However, the figure for this section (Figure 5) shows only LGE images. It would be desirable to also include MR images that demonstrate increased ventricular mass. 4) Please spell out the term for “ECV” in the “Acute Myocarditis” section instead of the “Covid-19 related cardiac dysfunction” section. 5) The English writing needs substantial improvement. For example, in the “Myocardial infarction” section, the sentence “... which may be as a result of ...” should be “... which may be a result of ...”. There are many other places where improper English usage affect the readability.

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Reviewer's code: 03650703

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Professor

Reviewer's Country/Territory: France

Author's Country/Territory: Australia

Manuscript submission date: 2021-03-18

Reviewer chosen by: Ze-Mao Gong

Reviewer accepted review: 2021-08-02 13:41

Reviewer performed review: 2021-08-24 01:18

Review time: 21 Days and 11 Hours

Scientific quality	☐ Grade A: Excellent ☒ Grade B: Very good ☐ Grade C: Good ☐ Grade D: Fair ☐ Grade E: Do not publish
Language quality	☐ Grade A: Priority publishing ☒ Grade B: Minor language polishing ☐ Grade C: A great deal of language polishing ☐ Grade D: Rejection
Conclusion	☐ Accept (High priority) ☐ Accept (General priority) ☒ Minor revision ☐ Major revision ☐ Rejection
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Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Dear editor, We carefully reviewed the review article entitled “The role of cardiac MRI in troponitis syndromes” that discuss the role of CMRI in acute myocardial infarction, TTS, COVID-19, myocarditis and Athlete’s heart syndrome. The topic is interesting especially that CMRI becomes the imaging modality of choice for making differential diagnosis in MINOCA patients and to subsequently guiding the appropriate therapy. I recommend the publication of the article after taking into consideration the following points: - Introduction is short. It seems better to discuss MINOCA as authors are interested in troponitis syndromes. - The definition of myocardial infarction in “Myocardial Infarction” section is not appropriate and confused “implicitly authors define the supply-demand mismatch”. It could be better to refer to the new international ESC definition for MI (type 1 and 2). Also, what about the role of CMRI in assessing myocardial viability in order to guide revascularization strategy in multi-vessel CAD AMI patients? - Role of quantitative perfusion CMRI in TTS? It is known that quantitative perfusion MRI is well established imaging modality to assess microvascular ischemia which play an important role in the pathogenesis of TTS (microvascular dysfunction). - There are any reported specific CMRI features for COVID-19 related myocarditis or cardiac involvement?