

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Cardiology*

**Manuscript NO:** 82211

**Title:** Effect of Fibrinolytic Therapy on STEMI Clinical Outcomes during the COVID-19  
Pandemic: A systematic review and meta-analysis

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05347364

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer's Country/Territory:** Italy

**Author's Country/Territory:** United States

**Manuscript submission date:** 2022-12-09

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-12-22 20:01

**Reviewer performed review:** 2022-12-22 20:17

**Review time:** 1 Hour

|                    |                                                                                                                                                                                                                                     |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Scientific quality | <input checked="" type="radio"/> Grade A: Excellent <input type="radio"/> Grade B: Very good <input type="radio"/> Grade C: Good<br><input type="radio"/> Grade D: Fair <input type="radio"/> Grade E: Do not publish               |
| Language quality   | <input checked="" type="radio"/> Grade A: Priority publishing <input type="radio"/> Grade B: Minor language polishing<br><input type="radio"/> Grade C: A great deal of language polishing <input type="radio"/> Grade D: Rejection |
| Conclusion         | <input type="radio"/> Accept (High priority) <input type="radio"/> Accept (General priority)<br><input checked="" type="radio"/> Minor revision <input type="radio"/> Major revision <input type="radio"/> Rejection                |
| Re-review          | <input checked="" type="radio"/> Yes <input type="radio"/> No                                                                                                                                                                       |

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|-------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Peer-reviewer<br/>statements</b> | Peer-Review: [ <input checked="" type="checkbox"/> ] Anonymous [ <input type="checkbox"/> ] Onymous |
|                                     | Conflicts-of-Interest: [ <input type="checkbox"/> ] Yes [ <input checked="" type="checkbox"/> ] No  |

## SPECIFIC COMMENTS TO AUTHORS

In the paper “Fibrinolytic-based reperfusion as the preferred strategy in STEMI patients during the COVID-19 pandemic: A systematic review and meta-analysis “ the authors well focused on the problem of STEMI treatment during COVID outbreak. Data are well exposed and supported. Even if fibrinolysis-based reperfusion was found to be a major reperfusion strategy during the pandemic period all over the world in the discussion they should insert the concept that in countries with a high income status a well re-organized emergency system allowed to maintain primary PCI as the treatment of choice for patients and operators (Impact of COVID-19 on STEMI: Second youth for fibrinolysis or time to centralized approach? G.Tumminello et al; Int J Cardiol Heart Vasc. 2020 Oct; 30: 100600)

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**Peer-review model:** Single blind

**Reviewer's code:** 03455028

**Position:** Editorial Board

**Academic degree:** PhD

**Professional title:** Professor

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** United States

**Manuscript submission date:** 2022-12-09

**Reviewer chosen by:** Yu-Lu Chen

**Reviewer accepted review:** 2023-02-24 15:37

**Reviewer performed review:** 2023-03-06 16:12

**Review time:** 10 Days

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|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Scientific quality                          | <input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good<br><input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish |
| Novelty of this manuscript                  | <input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair<br><input type="checkbox"/> Grade D: No novelty                                                 |
| Creativity or innovation of this manuscript | <input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair<br><input type="checkbox"/> Grade D: No creativity or innovation                                |

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| <b>Scientific significance of the conclusion in this manuscript</b> | <input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair<br><input type="checkbox"/> Grade D: No scientific significance                                         |
| <b>Language quality</b>                                             | <input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection |
| <b>Conclusion</b>                                                   | <input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority)<br><input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection          |
| <b>Re-review</b>                                                    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                          |
| <b>Peer-reviewer statements</b>                                     | Peer-Review: <input type="checkbox"/> Anonymous <input checked="" type="checkbox"/> Onymous                                                                                                                                                  |
|                                                                     | Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                   |

## SPECIFIC COMMENTS TO AUTHORS

In the article titled " Fibrinolytic-based reperfusion as the preferred strategy in STEMI patients during the COVID-19 pandemic: A systematic review and meta-analysis" by Anwar Khedr et al, investigation of the incidence of fibrinolytic therapy during the COVID-19 pandemic and its effects on STEMI clinical outcomes were described. The authors found that there is an increased incidence of fibrinolysis during the pandemic period, but it is not associated with the risk of all-cause mortality. However, there are some points that need to be revised: 1. The title is inaccurate. The manuscript does not reflect that fibrinolytic-based reperfusion is preferred strategy for all STEMI patients during the COVID-19 pandemic. 2.The manuscript doesn't adequately describe the background and present status of the study. 3. The manuscript does not provide a full discussion of the results, and relevance to clinical practice sufficiently 4. The quality of figures is not good. Figure 2 is blurred. 5. Although the authours acknowledge several limitations inherent, there is probably scope for the authours to discuss answers to a number of clinically relevant questions that the results present.

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**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 03656608

**Position:** Peer Reviewer

**Academic degree:** 博士, MD, PhD

**Professional title:** 教授, Professor

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** United States

**Manuscript submission date:** 2022-12-09

**Reviewer chosen by:** Geng-Long Liu

**Reviewer accepted review:** 2023-03-07 00:38

**Reviewer performed review:** 2023-03-11 03:29

**Review time:** 4 Days and 2 Hours

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|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Scientific quality                          | <input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good<br><input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish |
| Novelty of this manuscript                  | <input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair<br><input type="checkbox"/> Grade D: No novelty                                                 |
| Creativity or innovation of this manuscript | <input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair<br><input type="checkbox"/> Grade D: No creativity or innovation                                |

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| <b>Scientific significance of the conclusion in this manuscript</b> | <input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair<br><input type="checkbox"/> Grade D: No scientific significance                                         |
| <b>Language quality</b>                                             | <input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection |
| <b>Conclusion</b>                                                   | <input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority)<br><input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection          |
| <b>Re-review</b>                                                    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                          |
| <b>Peer-reviewer statements</b>                                     | Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous                                                                                                                                                  |
|                                                                     | Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                   |

## SPECIFIC COMMENTS TO AUTHORS

Anwar Khedr et al. evaluated the incidence of fibrinolytic therapy before and during the COVID-19 pandemic, and its effect on all-cause mortality via a systematic review and meta-analysis. They found that the incidence of fibrinolytic therapy during the COVID-19 pandemic was higher than that before the CDVID-19 pandemic, but it cannot rise the risk of all-cause mortality of STEMI patients. The idea of the study is well, but there are still many major issues to be addressed. Major Abstract In the Conclusions section, it is not suitable to use “be associated with” to describe your conclusion. Introduction 1. “Gold standard” is commonly used to describe the diagnosis methods, rather than treatment methods. Please revise it. 2. The sentence “A recent systematic review and meta-analysis by Kamarullah et al. showed that there was a decline in STEMI care performance and a deterioration in clinical outcomes in STEMI patients” seems not complete. Do you want to say “there was a decline in STEMI care performance and a deterioration in clinical outcomes in STEMI patients during COVID-19 pandemic”? Methods Please give the abbreviation of “odds ratio” when it first appeared. Double-check the similar problems throughout the manuscript. Results

1. In the section of All-cause mortality, the phrase “patients receiving treatment” is confusing. What treatments were received by patients? Please describe it clearly. 2.

The sentence “Patients receiving treatment in LMIC [OR 1.16 (1.03 to 1.30); I<sup>2</sup>=0%; P=0.01; GRADE: Very Low] were at a higher risk of all-cause mortality than patients receiving treatment in HICs [OR 1.13 (0.76 to 1.66); I<sup>2</sup>=72%; P=0.55; GRADE: Very Low]” seems not right, because there is not statistically significance in HICs. You cannot compare LMIC with HICs as you described. 3. In section of Meta-regression for exploring specific covariates, you cannot provide so much cited evidence to discuss, because this is the section of results. Just describe your results. 4. Whether the incidence of fibrinolysis is increased with the rising incidence of STEMI? Please give the incidence of STEMI before and during the COVID-19 pandemic. 5. Please compare the incidence of fibrinolysis and the incidence of PCI before and during the COVID-19 pandemic. 6. Whether COVID-19 affects the duration from symptoms (for example, chest pain) to intervention (for example, PCI, fibrinolysis) in patients with STEMI? Please provide more data. Figures The resolution of the figure is too low. Please satisfy the requirement of the journal. Tables Please revise your tables to three-line tables. Similarity The similarity is too high. Please rephrase and revise.