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Thanks for the kind reviews provided. The editorial and reviewer changes are highlighted in yellow in the revised manuscript.

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 85100

Title: The current role and future of Artificial Intelligence in Echocardiography

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 00068967 Position: Editorial Board Academic degree: MSc, PhD

Professional title: Academic Fellow, Deputy Director, Full Professor, Professor, Senior

Editor

Reviewer's Country/Territory: China

Author's Country/Territory: Spain

Manuscript submission date: 2023-04-11

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-04-13 02:51

Reviewer performed review: 2023-04-17 06:51

Review time: 4 Days and 3 Hours

	[] Grade A: Excellent [Y] Grade B: Very good [] Grade C:
Scientific quality	Good
	[] Grade D: Fair [] Grade E: Do not publish



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Novelty of this manuscript	[] Grade A: Excellent [] Grade B: Good [<mark>Y</mark>] Grade C: Fair [] Grade D: No novelty
Creativity or innovation of this manuscript	[] Grade A: Excellent [] Grade B: Good [Y] Grade C: Fair [] Grade D: No creativity or innovation
Scientific significance of the conclusion in this manuscript	[] Grade A: Excellent [Y] Grade B: Good [] Grade C: Fair [] Grade D: No scientific significance
Language quality	[Y] Grade A: Priority publishing [] Grade B: Minor language polishing [] Grade C: A great deal of language polishing [] Grade D: Rejection
Conclusion	[] Accept (High priority) [Y] Accept (General priority) [] Minor revision [] Major revision [] Rejection
Re-review	[Y]Yes []No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [] Onymous Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Dear authors: Thanks for your good work, though it has the limited novelty, of course this area is ongoing prosperously. You have summarized the recent progress of AI applications in cardiac diseases by combining EC detection, it will absolutely address much more issues including labor-cost and technique-insufficiency in this aspect, meanwhile you posed the very potential crisis and limitations associated with this advanced technique, given it a relative objective evaluation. However, the core of this technique that how did this technique work were not reported in turn confused the readers. Would you pleased to amend the detail information about it?



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Answer to reviewer 1

Thanks for the recognition of our efforts to summarize the current situation of the value of AI in cardiac imaging focusing on echocardiography. It has been addressed in some lines the comments about the AI and the labor-cost and the AI and technique-insufficiency. It is well known that the manual handling is needed, and the workforce will prevail for a long period of time to perform these tasks. The potential limitations are clearly described in the Table 1. How AI work is explained elsewhere so no more details were added to simplify the review



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Reviewer's code: 05327699 Position: Editorial Board

Academic degree: MBBS, MNAMS, MS

Professional title: Additional Professor

Reviewer's Country/Territory: India

Author's Country/Territory: Spain

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Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-04-12 11:20

Reviewer performed review: 2023-04-17 08:01

Review time: 4 Days and 20 Hours

	[] Grade A: Excellent [] Grade B: Very good [] Grade C:
Scientific quality	Good
	[Y] Grade D: Fair [] Grade E: Do not publish
Novelty of this manuscript	[] Grade A: Excellent [] Grade B: Good [Y] Grade C: Fair [] Grade D: No novelty
Creativity or innovation of this manuscript	[] Grade A: Excellent [] Grade B: Good [Y] Grade C: Fair [] Grade D: No creativity or innovation



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Conclusion	[] Accept (High priority) [] Accept (General priority) [] Minor revision [Y] Major revision [] Rejection
Re-review	[Y]Yes []No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [] Onymous Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Dear Authors, 1. This manuscript requires great deal of language - polishing. Throughout the manuscript there are numerous grammatical errors and so many sentences are not making any sense. Please take help of some expert to improve English in your Article. 2. Please add one graph of Random - Forest analysis to make findings self - explanatory. 3. How POCUS is able to diagnose cardiac - patients without any physical contact? 4. How your study is different from the other studies? What your study adds to the existing literature on this topic? 5. Please re-write the Core -Tip part to make it more relevant. 6. What are the different commonly used AI based modules and platforms to diagnose cardiac - diseases on reading ECG? Are they supervised / semi-supervised or <mark>no supervision at all</mark>. 7. The discussion and conclusion part needs to be <mark>re-written</mark> > Thanks

Answer to reviewer 2

- 1. Thanks for your comments to improve the text, the text has been revised for a better grammar.
- 2. To simplify the review, we decided not to include the random-forest analysis



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graphical description as it goes beyond the scope of this review and makes the paper longer without a real need. As the reviewer know the random forest is one of the many ways of analysis with Machine Learning

- 3. The POCUS reference has been rewritten for a better understanding. The POCUS was guided by Deep learning algorithms to obtain the right imaging planes by non-expert physicians.
- 4. Our study is not completely different of others, but is more updated and touches different aspects of the problem not fully studied in other previous published reviews.
- 5. The core tip has been partially modified
- 6. As it is obtained through Deep Learning is unsupervised, one phrase is added in the new version
- 7. Small changes have been done through discussion and conclusions