

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Diabetes*

**Manuscript NO:** 83378

**Title:** Diabetes Mellitus and Atrial Fibrillation-From Pathophysiology to Treatment

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

**Peer-review model:** Single blind

**Reviewer's code:** 06366603

**Position:** Peer Reviewer

**Academic degree:** MS, PhD, RN

**Professional title:** Assistant Professor

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

**Author's Country/Territory:** Greece

**Manuscript submission date:** 2023-01-20

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-01-24 14:33

**Reviewer performed review:** 2023-01-24 14:43

**Review time:** 1 Hour

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 Grade E: Do not publish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

<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 <input type="checkbox"/> Grade D: No scientific significance
<b>Language quality</b>	<input checked="" type="checkbox"/> Grade A: Priority publishing <input 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) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" 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

The topic of this article is very interesting, but there are still some issues that need to be clarified and further explain in the manuscript. 1.the term of "DM" is type1 or 2? 2.if the "DM" is type 2, how does the "glucose-lowering therapies " affect the ROS , or patients' HBA1C? 3.what is the possible direct mechanism of "glucose-lowering therapies " in AF?

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**Reviewer's code:** 03846864

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Professor

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

**Author's Country/Territory:** Greece

**Manuscript submission date:** 2023-01-20

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-01-28 00:13

**Reviewer performed review:** 2023-01-28 02:03

**Review time:** 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
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<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

1.It would be more appropriate to change the contents of Table 2 to those related to treatment 2.Draw a figure to describe the pathophysiological mechanism of the relationship between DM and AF in detail 3.The manuscript should talk about correlation of DM and AF first , then pathophysiological mechanism 4.The structure of the pathophysiological mechanism is not very clear, because the correlation is bidirectional. Will AF patients develop into DM? What is the mechanism?

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**Reviewer's code:** 03701805

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Associate Professor

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

**Author's Country/Territory:** Greece

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**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-01-27 01:38

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**Review time:** 4 Days and 12 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
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	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS

This interesting review presents the current evidence regarding the connection between diabetes and AF and discussing the therapeutic options. It is with significant importance for the treatment of cardiometabolic disease. The manuscript was well written. I have some suggestions for revision. 1. A figure summarized the mechanisms between the association between DM and AF is needed. It is important for the readers to get the key messages from the review. 2. It is important to summarize the biomarkers in the risk prediction and management of DM with AF. For example, adipokines are important in this field. Recently, some novel adipokines (PMID: 34790288; PMID: 32842761) had been reported in the risk prediction and management of cardiometabolic disease (e.g, diabetic cardiomyopathy). 3. Even in patients with prediabetes, the risk of CVD and HF (PMID: 32669282; PMID: 33769672) was increased. Is it similar for AF ? 4. The authors had discussed that obesity and insulin resistance may play a link for DM and AF. Similar, nonalcoholic fatty liver disease is associated with increased risk of atrial fibrillation (PMID: 32279432). Is there an interaction?