

## PEER-REVIEW REPORT

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

**Manuscript NO:** 77782

**Title:** Effectiveness and safety of human umbilical cord-mesenchymal stem cells for treating type 2 diabetes mellitus

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

**Peer-review model:** Single blind

**Reviewer's code:** 02560127

**Position:** Editorial Board

**Academic degree:** PhD

**Professional title:** Professor

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

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

**Manuscript submission date:** 2022-06-06

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-06-06 01:05

**Reviewer performed review:** 2022-06-15 11:17

**Review time:** 9 Days and 10 Hours

<b>Scientific quality</b>	<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 Grade E: Do not publish
<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) <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

**Peer-reviewer  
statements**

Peer-Review: [☒] Anonymous [☐] Onymous

Conflicts-of-Interest: [☐] Yes [☒] No

## SPECIFIC COMMENTS TO AUTHORS

The study is interesting. However, there are a few concerns: Introduction: 1. Authors should discuss T2DM pathophysiology in detail. 2. A few more studies pertaining to the cell-based therapy in T2DM should be given. Material and Methods: 1. Study Design needs to be written in precise way with proper explanation. For example, patients were assessed 16 weeks prior to the intervention and original therapy was maintained for 2 months. Here, authors should mention in which 2 months they have maintained the original therapy? Likewise, the significance of  $\pm 3$  needs to be explained. Furthermore, the authors should explain why they have observed patients at day28 and then directly at day84? Results: 1. Authors have mentioned that the third infusion was given at day 21 while first assessment was made at day 28 which is mentioned as 4th week by the authors. However, it should be considered as day 7 or 1st week after intervention. Page 8: Safety assessment: "It did not recur after reducing the dosage of insulin in the following period". Is insulin given to these patients? Or is it written by mistake, because it is not mentioned anywhere else in the manuscript. Characteristics: 1. Total number of patients included is 16 in which 12 were males while 4 were females. Is there any relation between gender and the incidence of diabetes? On what criteria patients have been selected? 2. The difference between the disease group is long (i.e.,  $10.06 \pm 5.74$ ). What other parameters have been included in the patient selection beside duration of diabetes?

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**Peer-review model:** Single blind

**Reviewer's code:** 06109373

**Position:** Peer Reviewer

**Academic degree:** MBBS, PhD

**Professional title:** Professor

**Reviewer's Country/Territory:** United Arab Emirates

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

**Manuscript submission date:** 2022-06-06

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-07-21 10:39

**Reviewer performed review:** 2022-07-28 08:24

**Review time:** 6 Days and 21 Hours

<b>Scientific quality</b>	<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
<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) <input checked="" type="checkbox"/> Minor revision <input 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="radio"/> ] Anonymous [ <input type="radio"/> ] Onymous Conflicts-of-Interest: [ <input type="radio"/> ] Yes [ <input checked="" type="radio"/> ] No
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## SPECIFIC COMMENTS TO AUTHORS

1. This study is focused on the effectiveness and safety of human umbilical cord mesenchymal stem cell (hUC-MSC) infusion for treating type 2 diabetes. The results suggest that hUC-MSC infusion can improve glycemia, restore islet  $\beta$ -cell function, and reduce the dosage of hypoglycemic agents without serious short-term adverse events.

2. The quality of this manuscript is good. It addresses a new paradigm in the management of T2D. The conclusions drawn appropriately summarize the data that this study provided. It confirms data obtained previously from both animal and human studies.

3. The most serious limitation of the study is the long-term safety of the new treatment procedure. The manuscript dealt only with short-term adverse events. Authors avoided discussion of the malignant transformation potential of the hUC-MSC or future rejection of further treatment. They also did not discuss follow-up plans or progress of the study in future.

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

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**Position:** Editorial Board

**Academic degree:** PhD

**Professional title:** Professor

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

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

**Manuscript submission date:** 2022-06-06

**Reviewer chosen by:** Han Zhang

**Reviewer accepted review:** 2022-08-23 17:34

**Reviewer performed review:** 2022-08-25 01:14

**Review time:** 1 Day and 7 Hours

<b>Scientific quality</b>	<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
<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 checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous



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statements

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

## **SPECIFIC COMMENTS TO AUTHORS**

Authors have addressed all queries. The manuscript is now suitable for publication