



## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Clinical Cases*

**Manuscript NO:** 82304

**Title:** Corneal endothelial cells and acoustic cavitation in phacoemulsification

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

**Peer-review model:** Single blind

**Reviewer's code:** 04909782

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Associate Professor

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

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

**Manuscript submission date:** 2022-12-14

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-12-15 10:11

**Reviewer performed review:** 2022-12-15 10:22

**Review time:** 1 Hour

<b>Scientific quality</b>	<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 Grade E: Do not publish
<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</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous



**Baishideng  
Publishing  
Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
**E-mail:** [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)  
**https://**[www.wjgnet.com](http://www.wjgnet.com)

statements	Conflicts-of-Interest: [ ] Yes [ <b>Y</b> ] No
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#### **SPECIFIC COMMENTS TO AUTHORS**

I read this minireview with great interest. It is well-written and with comprehensive references about the topic. I have two suggestions: - A table summarizing the most relevant studies should be added. - A figure describing the ACOUSTIC CAVITATION EFFECT AND ITS EFFECTS ON CEC should be included too.



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**Reviewer's code:** 06245358

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Academic Research, Doctor, Surgeon

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

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

**Manuscript submission date:** 2022-12-14

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-12-14 15:46

**Reviewer performed review:** 2022-12-22 19:49

**Review time:** 8 Days and 4 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" 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 type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
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<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous



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Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
**E-mail:** bpgoffice@wjgnet.com  
**https://www.wjgnet.com**

statements	Conflicts-of-Interest: [ ] Yes [ <b>Y</b> ] No
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### SPECIFIC COMMENTS TO AUTHORS

\*The authors discuss corneal endothelial injury caused by oxidative stress and acoustic cavitation during phacoemulsification and also related protective measures and implications for related fields. I think some issues should be addressed before further consideration of the manuscript. I've listed my comments below: \*There are several missing references. For example, last sentences of the first paragraph of introduction (CECs cannot regenerate after injuries, and strategies must be taken to prevent CEC loss after phacoemulsification or other endothelial injuries) has no references. So, recheck the manuscript meticulously and fix this issue. \*” Therefore, we use the following databases to search for publications that include acoustic incubation, phacoemulsification, corneal endothelial cells, hydroxyl free radicals or reactive oxygen specifications: PubMed, EMBASE, Web of Science, ScienceDirect, etc.” This phrase is not belonged to introduction section. Also, “etc.” is not a form of scientific language. You should state clearly and specifically the methods of search under ‘Material and methods’ heading or ignore and delete it entirely. \*Your manuscript should be rechecked for English language, grammar, punctuation, spelling, and overall style. I have mentioned some of the errors below: - “This paper discusses corneal endothelial injury, oxidative stress caused by acoustic cavitation and oxidative stress on CEC in phacoemulsification, the related protective measures, and implications for related fields” should be rephrased. My suggestion is ‘This paper discusses corneal endothelial injury caused by oxidative stress secondary to acoustic cavitation during phacoemulsification and also related protective measures and implications for related fields’. - “Cataract phacoemulsification” is a meaningless combination. You should use ‘phacoemulsification surgery’. - “ACOUSTIC CAVITATION EFFECT AND ITS EFFECTS ON CEC” should be rephrased



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**E-mail:** [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)  
**https://**[www.wjgnet.com](http://www.wjgnet.com)

to 'ACOUSTIC CAVITATION AND ITS EFFECTS ON CEC'. - "cataract lens" should be changed to 'cataractous lens'. - "CECS" should be changed to 'CECs'. - "indispensible" should be changed to 'indispensable'. - "pseudolenticular bullous keratopathy" should be replaced with 'pseudophakic bullous keratopathy'. \* "CECs play a crucial role in regulating the constant hydration of the corneal stroma and transparency" should be changed to 'CECs play a crucial role in regulating the constant dehydration of the corneal stroma and transparency'. \* "At present, the only effective option to treat corneal endothelial dysfunction is corneal endothelium transplantation" should be changed to 'At present, the only effective option to treat corneal endothelial dysfunction is corneal transplantation (e.g., full thickness penetrating keratoplasty or lamellar endothelial keratoplasty'. \*A photo or schematic image of sleeve/probe can be helpful. \* "They found that there was no significant difference between the two groups in the number of CECs before the operation, but the number of CECs after the operation increased significantly in the group treated with ascorbic acid (P=0.011)". This phrase should be rechecked and corrected. It is not possible and logical that ECD increases after surgery even with usage of ascorbic acid. I think that you meant the ECD of the treated group was higher compared to the other group.



## RE-REVIEW REPORT OF REVISED MANUSCRIPT

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**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Academic Research, Doctor, Surgeon

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

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

**Manuscript submission date:** 2022-12-14

**Reviewer chosen by:** Jia-Ping Yan

**Reviewer accepted review:** 2023-02-10 09:21

**Reviewer performed review:** 2023-02-10 09:29

**Review time:** 1 Hour

<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 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



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Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
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**SPECIFIC COMMENTS TO AUTHORS**

N/A