

PEER-REVIEW REPORT

Name of journal: *World Journal of Psychiatry*

Manuscript NO: 85398

Title: Exosomal miR-320e alleviates cognitive impairment and depression in cerebral small vessel disease through Wnt2targeted inhibition of the Wnt/ β -catenin pathway

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06521538

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Doctor, Research Associate

Reviewer's Country/Territory: Australia

Author's Country/Territory: China

Manuscript submission date: 2023-05-24

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-05-26 00:42

Reviewer performed review: 2023-06-08 09:40

Review time: 13 Days and 8 Hours

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 Grade E: Do not publish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 checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <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 <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<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
Conclusion	<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
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	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

Cerebral small vessel disease (CVSD) accounts for 20–30% of ischemic stroke cases that are the deadliest disease in China and the second most disabling disease worldwide. In this study, the authors aimed at exploring the protective role of human exosomal miR-320e in treating cerebral small vessel disease. The authors used exosomes derived from patients with CVSD, cell models, western-blot analysis, real-time PCR, and RNA-seq to demonstrate their hypothesis. The results showed that exosomal miR-320e was downregulated in patients with CVSD, and exosomal miR-320e suppresses the Wnt/ β -catenin pathway and may play a protective role in CVSD progression. So, in my opinion, this paper is well-written. The experimental design is reasonable, and the results reflects the conclusion as well. I recommend its acceptance after the minor revision. The detailed comments are: 1. In this study, the authors extracted exosomes from blood by filtering. As far as know, ultracentrifugation is also a good and common way for exosome extraction. So, is there any particular reason to use filtering? What are the key advantages of it compared to other way, like ultracentrifugation? 2. Page 15-17, there are some redundant tables. 3. The authors should carefully check the format and



**Baishideng
Publishing
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

typo issues. For example, “Vascular integrity is gradually lost with aging and other risk factors.-catenin pathway can regulate vascular neogenesis” (Page 5).

PEER-REVIEW REPORT

Name of journal: *World Journal of Psychiatry*

Manuscript NO: 85398

Title: Exosomal miR-320e alleviates cognitive impairment and depression in cerebral small vessel disease through Wnt2targeted inhibition of the Wnt/ β -catenin pathway

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06521135

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Associate Professor, Doctor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2023-05-24

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-05-30 00:41

Reviewer performed review: 2023-06-12 00:31

Review time: 12 Days and 23 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
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <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 <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<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
Conclusion	<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
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	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

The authors extracted exosomes from cerebral small vessel disease (CVSD) patients and use them to investigate the protective role of exosomal miR-320e in the progress of CVSD and the subsequent stroke. After reasonable designing and performing the experiments, the authors demonstrated that exosomal miR-320e can effectively alleviates cognitive impairment and depression in CVSD through Wnt2 targeted inhibition of the Wnt/ β -catenin pathway. This result also draws a conclusion that exosomal miR-320e is a potential drug for stroke treatment. In short, the topic of this manuscript is timely and interesting. The authors have organized the manuscript rationally, with good methodology and well-written English. However, some important editing needs to be done before publication: 1) Since the authors aim at investigating the protective role of exosomal miR-320e in the progress of CVSD. I wonder whether the utilization of HUVECs can represent the cerebral blood vessels? 2) Undoubtedly, the authors have provided us a nice manuscript, several formatting errors should be addressed before publication. A significant example is, on page 15-17, the table templates of the journal are still there.