

PEER-REVIEW REPORT

Name of journal: *World Journal of Diabetes*

Manuscript NO: 62193

Title: Altered spontaneous brain activity patterns in patients with diabetic retinopathy using amplitude of low-frequency fluctuation

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 02548382

Position: Peer Reviewer

Academic degree: MD

Professional title: Professor

Reviewer's Country/Territory: Italy

Author's Country/Territory: China

Manuscript submission date: 2021-01-01

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-06-26 15:23

Reviewer performed review: 2021-06-26 16:08

Review time: 1 Hour

Scientific quality	☐ Grade A: Excellent ☒ Grade B: Very good ☐ Grade C: Good ☐ Grade D: Fair ☐ Grade E: Do not publish
Language quality	☐ Grade A: Priority publishing ☐ Grade B: Minor language polishing ☒ Grade C: A great deal of language polishing ☐ Grade D: Rejection
Conclusion	☐ Accept (High priority) ☐ Accept (General priority) ☐ Minor revision ☒ Major revision ☐ Rejection
Re-review	☒ Yes ☐ No



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**Peer-reviewer
statements**

Peer-Review: ☒ Anonymous ☐ Onymous

Conflicts-of-Interest: ☐ Yes ☒ No

SPECIFIC COMMENTS TO AUTHORS

The study was well-performed and has interesting data. However, there are many syntax and grammar errors. Many sentences don't make sense. Verbs and articles are often missing. You should rewrite it entirely, like this it is unacceptable.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: *World Journal of Diabetes*

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Academic degree: MD

Professional title: Professor

Reviewer's Country/Territory: Italy

Author's Country/Territory: China

Manuscript submission date: 2021-01-01

Reviewer chosen by: Chen-Chen Gao (Online Science Editor)

Reviewer accepted review: 2021-09-04 06:30

Reviewer performed review: 2021-09-05 09:57

Review time: 1 Day and 3 Hours

Scientific quality	☐ Grade A: Excellent ☒ Grade B: Very good ☐ Grade C: Good ☐ Grade D: Fair ☐ Grade E: Do not publish
Language quality	☐ Grade A: Priority publishing ☒ Grade B: Minor language polishing ☐ Grade C: A great deal of language polishing ☐ Grade D: Rejection
Conclusion	☐ Accept (High priority) ☐ Accept (General priority) ☒ Minor revision ☐ Major revision ☐ Rejection
Peer-reviewer	Peer-Review: ☐ Anonymous ☒ Onymous

statements

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

SPECIFIC COMMENTS TO AUTHORS

Although improved, some perplexities remain. This is especially evident in the abstract, which is the most important section in a paper that will go on PubMed. I will correct it for you here, but will not go to correct the paper; based on the differences between your and my abstract, you might wish to correct the entire paper by sticking to logical analysis of your sentences. Abstract BACKGROUND Diabetes mellitus is a metabolic disorder characterized by prolonged elevation of blood glucose due to various causes. Currently, the relationship between diabetic retinopathy (DR) and altered connectivity of brain function is unclear. AIM Using the amplitude of low-frequency fluctuation (ALFF) technique to explore altered spontaneous brain activity of patients with DR, we investigated the relation between this brain activity and clinical manifestations and behaviors of DR patients. METHODS Twenty-four DR patients and 24 healthy controls (HCs) matched for age and gender were enrolled. We measured and recorded average ALFF values of DR patients and HCs and then classified them using receiver operating characteristic (ROC) curves. RESULTS ALFF values of both left and right posterior cerebellar lobe and right anterior cingulate gyrus were remarkably higher in the DR patients than in the HCs; however, DR patients had lower values in the bilateral calcarine area. ROC curve analysis of different brain regions demonstrated high accuracy in the area under the ROC curve (AUC) analysis. However, there was no significant relationship between mean ALFF values for different regions and clinical presentations in DR patients. Neuronal synchronization abnormalities in some brain regions of DR patients were associated with cognitive and visual disorders. CONCLUSION Abnormal spontaneous brain activity was observed in many areas of DR patients' brains, which may suggest a possible link between clinical manifestations and



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behaviors in DR patients. I hope to have provided an idea.