

OPEN PEER REVIEW REPORT 1

Name of journal: Neural Regeneration Research

Manuscript NO: NRR-D-21-01006

Title: Oxygen therapy and neuroprotection in Alzheimer's disease

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Reviewer's country: Australia

COMMENTS TO AUTHORS

The review intends to explain the involvement of hypoxia in AD pathogenesis and present oxygen therapy as an alternative management strategy against AD. Most importantly, oxygen therapy could only be limited to slowing or delaying the onset of disease not the prevention or treatment against the disease.

In overall, the article is interesting with some novel perspectives on oxygen therapy as therapeutic strategy against AD. It could be amazing if a non-drug treatment against AD like neurodegenerations could be devised.

However, in this manuscript it could be better if authors could relate hypoxia to molecular mechanisms inside cell that could lead to amyloid deposition or impaired proteolytic clearance of toxic proteins such as amyloid beta deposition. This will explain that how regulated oxygen therapy could be a supportive therapeutic strategy against AD and help in the battle against the degrading symptoms.

I cannot see a single figure to possibly depict the main ideas of the manuscript. In some instances, the review fails to cite references for the facts presented. For example, in paragraph 2 of page 2, there is no reference to support the data. Similar writing style is present throughout the text which requires improvement.