Reviewer's report

Title: Ameliorating effects of aged garlic extracts against amyloid beta-induced neurotoxicity and cognitive impairment

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Reviewer: Masayuki Kaneko

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In this article authors demonstrated that ethyl acetate fractions from aged garlic extracts protected against Aβ-induced neurotoxicity in neuronal cells. The protective mechanism of aged garlic extracts is proposed to involve radical scavenging activity. Pre-administration with aged garlic extracts attenuated Aβ-induced cognitive impairment in vivo tests. The effects of aged garlic extracts on Aβ-induced neurotoxicity were statistically significant. However, the effects of aged garlic extracts were limited to unphysiological form (Aβ25-35)-induced reactive oxygen species (ROS). I have a concern that the effect of aged garlic extracts is too restrictive in oxidative stress. If only Aβ-induced ROS are scavenged by the compounds, its toxicity and its-induced cognitive impairment are completely overcome?

Minor points:
In Figure 2, the graph should not shorten, because original differences are distorted.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests' below.