Reviewer's report

Title: Edible bird's nest ameliorates oxidative stress-induced apoptosis in SH-SY5Y human neuroblastoma cells

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Reviewer: Chee-Mun Fang

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The manuscript by Yew et al. entitled “Edible bird’s nest ameliorates oxidative stress-induced apoptosis in SH-SY5Y human neuroblastoma cells” describes the potential neuroprotective effects conferred by Edible bird’s nest that ameliorates oxidative stress-induced apoptosis in SH-SY5Y cells. Authors also claim that EBN successfully reduces the level of 6-OHDA-induced apoptotic changes in SH-SY5Y cells and improves cell viability in MTT assay. My comments are as stated below:

- Major Compulsory Revisions

1) The authors found that the MNTDs (Fig. 1) for S1 and S2 are 75 ug/ml and 150 ug/ml respectively. However, with the S1 treatment at MNTD clearly showed to induce apoptosis and ROS which is contradict with the findings on cell morphology and toxicity. The authors explained that it might have initiated some kind of cytoprotective mechanism, it will be great if the authors could provide some form of supporting data for this explanation?

2) What is the concentration of the DMSO used in the study? DMSO is proven cytotoxic at higher concentrations. Could the authors clarify whether any vehicle control experiments were performed in the experiments?

3) From the cell morphological study, the authors claimed that the S1 and S2 treatments prevent apoptotic changes in SH-SY5Y cells. It might be inappropriate to make such a claim without electron microscopy pictures. Could the authors provide any specific immunoassay/ Immunofluorescence data to support the finding?

4) The results presented are puzzling as the authors showed after the S1 and S2 treatment, the cell viability is improved (MTT and morphological observation), however this finding was not supported by the data after the 6-OHDA challenge in other assays (ROS, MMP, Caspase etc).

- Minor Essential Revisions

1) Improve the quality of the Figure 5

- Discretionary Revisions

1) Figure 2- It will be good if the authors could put the same treatment groups (with and without 6-OHDA challenge) side by side for easy comparison.
Level of interest: An article whose findings are important to those with closely related research interests

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.