Reviewer's report

Title: Potentiating and synergistic effect of grape fruit juice on the antioxidant and antiinflammatory activity of aripiprazole against hydrogen peroxide induced oxidative stress in mice

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Reviewer: Ratana Banjerdpongchai

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Major points:
The work did not show any significant new finding, e.g. as shown in Figure 6 and 7. It cannot be concluded in any significant way. The chromatogram should be added with more standard compounds as shown in Table 1, to support the previous findings beside naringin. Since in the chromatogram shows many specific compounds. The aripiprazole is an anti-psychologic drug with the conventional mechanism of dopamine receptor signaling, which are not anti-oxidant and anti-inflammatory activities. This fact should be mentioned about the linkage to antioxidant and anti-inflammatory activities. The Table 2 data are very complicated in interpretation, especially in page 9. In the Table 2, the significant marks should be *, compared to control, and #, when compared to H2O2. The statistical significance value should be footnoted under the Table 2. The footnote under the Table 2, of these markers may help more understanding and the ns (not significant should be deleted). The authors concluded that the effect was synergistically in antioxidant and anti-inflammatory activities. Cavaillon JM, (2001) reviews that cytokines amount, nature of target cells, nature of activating signal, nature of produced cytokines, timing, sequence of cytokine action, experimental model are parameters, which influence the cytokine properties. Inflammation is characterized by an interplay between pro- and anti-inflammatory cytokines, which are commonly classified in one or the other category: interleukin-1 (IL-1), tumor necrosis
factor (TNF), gamma-interferon (IFN-gamma), IL-12, IL-18 and granulocyte-macrophage colony stimulating factor are well characterized as pro-inflammatory cytokines whereas IL4, IL-10, IL-13, IFN-alpha and transforming growth factor-beta are recognized as anti-inflammatory cytokines. However, one cytokines can act as pro-inflammatory and anti-inflammatory character, which depends on the mentioned factors. Nevertheless, the data in Figure 6 and 7 are bizarre in the R2 value, which are not concluded significantly in any specific relationship. Creatine kinase isoform was measured, which isoform(s) since there are three of them? Why is CK an important factor, which needs to be determined?

Minor point:
English language is needed to be corrected intensively, since it is in informal way and not suitable to report in a scientific journal, such as didn't, isn't. The word "GF", or "GFJ" should be the same or consistent all through the manuscript. The references are not consistent with each other, such as the journal name, some are full names, and some are abbreviated forms.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I recommend additional statistical review
**Quality of written English**

Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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