Reviewer's report

Title: Treatment of capsaicin induces cell cycle arrest and apoptosis in human KB cancer cells

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Reviewer: Sheng-Po Hao

Reviewer's report:

The authors aimed to study the effect of capsaicin in inducing cell cycle arrest and apoptosis in human KB cancer cells.

Overall, it shows the effect of capsaicin logically.

Major Compulsory Revisions:

The authors need to respond on the following queries.

First of all, more information are required to be provided about the importance of determining the effect of capsaicin in KB cell lines in the background section. A lot of cell lines have been demonstrated to be affected by capsaicin, as cited in the references. Although the activation of the members of caspase family was shown in the Western blotting, the correlation of cleaved caspase 8, caspase 9, and caspase 3 seemed to be unmatched. There is no explanation in the results nor in the discussion section.

The reviewer would like to suggest the authors to elucidate the extrinsic death receptor pathway in capsaicin treatment instead of just saying “activation of caspase”.

No scale bars are shown in the figures of cell apoptosis, and the cell numbers seems to be unequal. The reviewer would like to suggest the authors to replace the representative figures.

In addition, it is uncommon to put the figure legends in the results section.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

'I declare that I have no competing interests'.