Reviewer’s report

Title: The protective effects of ginsenoside Rg1 against hypertension target-organ damage in spontaneously hypertensive rats

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Reviewer: Anwar Gilani

Reviewer’s report:

REVIEWER’S REPORT

The manuscript showed the potential protective effect of ginsenoside Rg1 against hypertension induced target-organ damage in spontaneously hypertensive rats (SHR). The authors used histopathological staining, transmission electron microscopy and immunohistochemical assays to elucidate the protection of organ-damage by hypertension in SHR. The work is well planned. Though Rg1 has no effect on lowering the blood pressure, however, it presented some good results of protecting the organs like aorta, heart and kidneys in SHR. The conclusion drawn is in agreement with the results and the methodology used.

General comments;

Major comments
- Figure 1 (F). There is a need to explain why the lower dose (5 mg/kg) has significant inhibitory effect, compared to SHR, while the higher dose 20 mg/kg has no effect. May be because the difference in dose was too wide (4 fold). Ideally next higher dose 10 mg/kg should have been tried particularly when the very high was shown to be ineffective.

- Figure 1; There is no point to compare Rg1 treated group (SHR-Rg1) with WKY group. This group (SHR-Rg1) needs to be compared primarily with SHR group, showing that there is no significant (NS)effect compared to SHR group.

There is a need to explain the rise in HR induced by the test material which may account for the lack of visible effect on BP.

Minor Comments;
- Why high salt diet (8%) has given to the rats, while the authors have used spontaneously hypertensive rats (SHR).

- Can the authors provide more details about the importance of protecting organ damage by Rg1, where it does not lower blood pressure.

- Can the authors provide more information about the traditional use of the plant and also more information about the Rg1 and provide references, if available.
Level of interest: An article of importance in its field

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests