

## Open peer review report 1

**Reviewer:** Mengliang Zhang, Lunds Universitet, Sweden.

### **Comments to the authors:**

The strength is to use the extract from a herb trying to find out its functional mechanism. The weakness is that the results do not support the conclusion.

The research work seems to be well designed and well conducted on a topic that is worth to study. The manuscript is also nicely presented. However, because the results, especially the presented figures, do not support the conclusions the work needs to be improved further. I have the following concerns.

1. The authors didn't clearly state the rationale for why they used methylprednisolone as a control drug. Methylprednisolone is a generic anti-inflammation drug. In their study it seems that this drug exerted same effects as the extracts from Huangqin. The authors didn't discuss anything about this.
  2. Figs. 1 and 2. These morphology figures showing the lesion sites from single sections do not give any insight about the differences between different treatment groups. Quantitative data needs to be presented.
  3. Fig. 3. In what area in the spinal cord were NF and BDNF immunostaining signals analyzed? How did the authors keep all the conditions identical/comparable from different groups? Why NF and BDNF were always co-labeled? They seem to label all the neurons in the presented area. How the specificity of the antibodies was controlled?
  4. Fig. 4. GFAP and CD11 should label different cell populations. However from this figure it can be seen that some cells were co-labeled. Actually the labeling from GFAP and CD11 doesn't need to be merged because astrocytes and microglia should never be co-localized regardless the treatments.
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