Author's response to reviews

**Title:** Cardioprotective Effect of Danshen and Gegen Decoction on Rat Hearts and Cardiomyocytes with Post-ischemia Reperfusion Injury

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**Author's response to reviews:** see over
Dear Editor,

Thank you very much for your information and suggestion about our manuscript <Cardioprotective Effect of Danshen and Gegen Decoction on Rat Hearts and Cardiomyocytes with Post-ischemia Reperfusion Injury>.

According to your suggestion, we have done the following changes:

1. We have put the statement “The authors declare that they have no competing interests” at the end of main text.

2. A native editor in our university has revised our manuscript for the grammar problem.

3. We have added the discussion about the difference between our group and Professor KM Ko’s group in the first paragraph of the Discussion section. Firstly, the I/R injury mainly happens on the reperfusion phase, which accompanied by excessive oxidative stress and ion accumulation after blood or oxygen restore. Secondly, Professor Ko’s work was about DG pretreatment protection on rat hearts and myocardium. They explained DG effect on anti-IR injury mainly by activating PKC pathway to inhibit the opening of $K_{ATP}$ on mitochondria. Their results provided the evidence that DG could be used as diet supplementary to improve heart anti-I/R injury potential ability. Our present study was focus on DG post-treatment on the reperfusion phase to explore DG protection on rat hearts and cardiomyocytes with I/R challenge ex vivo and in vitro. Additionally, we paid more attention on the physiological function recovery of rat hearts with I/R injury after DG post-treatment ex vivo. We also directly provided the evidence that DG directly inhibited the calcium accumulation within cardiomyocytes at the reperfusion injury using the live cell recording system under the confocal microscopy. Our present results showed that DG could be directly applied in the procedure of blood restoring surgery to attenuate the I/R injury in patient hearts.

4. Because the result of Figure 4 and Table 1 was the same, we have deleted Table 1.
5. We have put the abstract in the manuscript file. It is sure that we did not cite references and not refer to any figures or tables.

Yours sincerely,

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