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# Corrigendum: Ginkgolide C alleviates myocardial ischemia/ reperfusion-induced inflammatory injury via inhibition of CD40-NF-KB pathway

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#### KEYWORDS

ginkgolide C, myocardial ischemia/reperfusion injury, inflammation, CD40, NF-KB

# A Corrigendum on

Ginkgolide C alleviates myocardial ischemia/reperfusion-induced inflammatory injury via inhibition of CD40-NF- $\kappa$ B pathway

by Zhang R, Han D, Li Z, Shen C, Zhang Y, Li J, Yan G, Li S, Hu B, Li J and Liu P (2018). Front. Pharmacol. 9:109. doi: 10.3389/fphar.2018.00109

In the published article, there was an error in Figure 3 as published. The heart slice picture of the I/R group in Figure 3 was incorrect as the authors used pictures stored in a folder with the wrong name. Therefore, when combining the pictures to create Figure 3, the wrong ones were used. The corrected Figure 3 and its caption appear below.

In the published article, there was an error in Figure 4 as published. The pictures of Figure 4B were incorrect as the authors used pictures stored in a folder with the wrong name. Therefore, when combining the pictures to create Figure 4B, the wrong ones were used. The corrected Figure 4 and its caption appear below.

In the published article, there was an error in Figure 5 as published. The pictures of Figures 5B, C were incorrect as the authors used pictures stored in a folder with the wrong name. Therefore, when combining the pictures to create Figures 5B, C, the wrong ones were used. The corrected Figure 5 and its caption appear below.

In the published article, there was an error in Figure 7 as published. The target band VCAM-1 of Figure 7C was covered by the wrong band. Thus, the wrong protein band was displayed after combination. The corrected Figure 7 and its caption appear below.

In the published article, there was an error in Figure 8 as published. The target bands p-I $\kappa$ B- $\alpha$  of Figure 8H and  $\beta$ -actin of Figure 8E were covered by the wrong bands. Thus, the wrong protein band was displayed after combination. The corrected Figure 8 and its caption appear below.



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Effects of GC on the ultrastructure of myocardial tissue, histopathological changes, myocardial PMNs counting and MPO activity. (A1–A6) Representative transmission electron microscopy (TEM) observation of myocardial tissue injury for control group (A1), I/R group (A2), I/R + 16 mg/kg Aspirin group (A3), I/R + 8 mg/kg GC group (A4), I/R + 16 mg/kg GC group (A5), I/R + 32 mg/kg GC group (A6). (B1–B6) Representative light microscopic appearance of rat myocardial histopathological morphology (HE staining; original magnification × 200) for control group (B1), I/R group (B2), I/R + 16 mg/kg Aspirin group (B3), I/R + 8 mg/kg GC group (B4), I/R + 16 mg/kg GC group (B5), I/R + 32 mg/kg GC group (B6). (C) Effect of GC on histopathological scores, (D) effect of GC on myocardial PMNs counting and (E) effect of GC on MPO activity. The location of the histological images was taken in the infarcted area. Data were expressed as mean  $\pm$  SD (n = 8). \*\*\* p < 0.01 vs. control group; \*p < 0.05, \*\*p < 0.01 vs. I/R group.



Effect of GC on ICAM-1, VCAM-1 and iNOS expressions in myocardial tissue after I/R procedure. The tissue was observed using a microscope at a magnification x 400. (A) GC decreased the expression of ICAM-1. (B) GC decreased the expression of VCAM-1. (C) GC decreased the expression of iNOS. There was a little expression of ICAM-1, VCAM-1 and iNOS in myocardial tissue of the control group. The expressions of ICAM-1, VCAM-1 and iNOS in I/R group were markedly increased. Administration of GC exhibited reduced expressions of ICAM-1, VCAM-1 and iNOS compared with the I/R group in a dose-dependent manner. Administration of Aspirin also significantly decreased the expressions of ICAM-1, VCAM-1 and iNOS compared with I/R group. The location of the histological images was taken in the infarcted area. Data were expressed as mean  $\pm$  SD (n = 8). ##p < 0.01 vs. control group; \*p < 0.05, \*\*p < 0.01 vs. I/R group.



Effects of GC on the expressions of CD40, ICAM-1, VCAM-1, iNOS, NF- $\kappa$ B p65, p-1 $\kappa$ B- $\alpha$  and IKK- $\beta$  by Western blot after H/R procedure. (A) GC decreased the expression of CD40. (B) GC decreased the expression of ICAM-1. (C) GC decreased the expression of VCAM-1. (D) GC decreased the expression of iNOS. GC blocked the translocation of NF- $\kappa$ B p65 from cytosolic (E) to nuclear (F). (G) GC downregulated the expression of p-1 $\kappa$ B- $\alpha$ . (H) GC decreased the expression of IKK- $\beta$ . CD40, ICAM-1, VCAM-1, iNOS, p-1 $\kappa$ B- $\alpha$  and IKK- $\beta$  proteins were measured in cytosolic extract. The NF- $\kappa$ B p65 protein levels were assayed separately in cytosolic and nuclear extracts. Results were expressed as Protein/reference protein ratio. Data were expressed as mean  $\pm$  SD of three independent experiments. ##p < 0.01 vs. control group; \*p < 0.05, \*\*p < 0.01 vs. H/R group.



Effects of GC on cell viability (A) and the expressions of (B) CD40, (C) ICAM-1, (D) VCAM-1, (E) INOS, (F) cytoplasm NF- $\kappa$ B p65, (G) nucleus NF- $\kappa$ B p65, (H) p-I $\kappa$ B- $\alpha$  and (I) IKK- $\beta$  by Western blot after CD40 silencing procedure. Results were expressed as Protein/reference protein ratio. Data were expressed as mean  $\pm$  SD of three independent experiments. ##p < 0.01 vs. control group; \*p < 0.05, \*\*p < 0.01 vs. H/R group.