Author’s response to reviews

Title: Activation of kappa-opioid receptors by U50,488H improves vascular dysfunction in streptozotocin-induced diabetic rats

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Version: 2 Date: 10 October 2014

Author’s response to reviews: see over
Dear editor,

We would like to submit an original manuscript entitled “Activation of κ-opioid receptors by U50,488H improves vascular dysfunction in streptozotocin-induced diabetic rats”. The contributing authors are Xuan Zhou, Dongjuan Wang, Yuyang Zhang, Jinxia Zhang, Dingcheng Xiang, Haichang Wang. The co-authors have read the manuscript and approved its submission to *BMC Endocrine Disorders*.

In this paper, we found that activation of KOR by U50,488H reduced the enhanced contractility of aortas to KCl and noradrenaline and increased acetylcholine-induced vascular relaxation, which could also protect the aortal ultrastructure in diabetes. U50,488H treatment resulted in reduction in ANG II, sICAM-1, IL-6 and IL-8 levels and elevation in NO levels, while these effects were abolished by nor-BNI treatment. Furthermore, eNOS phosphorylation was increased, and NF-κB expression was down-regulated after U50,488H treatment. Our study demonstrated that U50,488H may have therapeutic effects on diabetic vascular dysfunction on the basis of improving endothelial dysfunction and attenuating chronic inflammation, which may be dependent on phosphorylation of eNOS and downstream inhibition of NF-κB.

The manuscript has not been published and considered for publication elsewhere in whole or part in any language. The authors declare that we have no conflicts to disclose.

Sincerely Yours,

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