Author’s response to reviews

Title: Protective and restorative effects of the traditional Chinese medicine Jitai tablet against methamphetamine-induced dopaminergic neurotoxicity

Authors:

Shasha Xu (shasha.1218@163.com)

Shaoang Tu (tushaoang@mail.bnu.edu.cn)

Jinlong Gao (gaojinlong06@mail.bnu.edu.cn)

Jia Liu (liujiadan@mail.bnu.edu.cn)

Zhirui Guo (gzr12358@163.com)

Jinming Zhang (zhangjm@sina.com)

Xingdang Liu (xingdliu@yahoo.com)

Jianhui Liang (liangjh@bjmu.edu.cn)

Yiyun Huang (henry.huang@yale.edu)

Mei Han (hanmei@bnu.edu.cn)

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Author’s response to reviews:

Dear Editor:

Thank you very much for inviting us to revise our manuscript. We very appreciate the comments and made point-to-point response. All changes are shown in red in the revised manuscript. And the manuscript has been edited by Elsevier's WebShop. We hope that you find the revised manuscript acceptable for publication in BMC Complementary & Alternative Medicine.

Editor Comments:

1. There are lots of typos and sentences which hard to understand. Revise manuscript by English editing company or native speaker. For example, “On average, people seeking treatment for METH abuse are younger (average age 25 years) than those of traditional drugs such as opioids and cocaine, especially in Asia where there has been a substantial increase in the treatment for METH abuse. “…leads to the manifestation of stereotypic.”
“…METH, especially on the dopaminergic system, shows up as a reduction…”

“one of the most commonly used traditional Chinese medicine that have been approved…”

Response: Thank you very much for your kind and constructive comments and advice. The revised manuscript has been carefully modified to catch up with some bugs in English grammar and spelling. In addition, this manuscript has been edited by professional English editing company via the Elsevier Webshop.

2. The statistical method for stereotype behaviors is not appropriate. Analyze them with proper statistics again and provide all detail results (i.e., F values, eta-squared etc).

Response: According to your kind comments and suggestions, two-way repeated measures ANOVA with time as a repeated measure (time x treatment) followed by LSD as post hoc test was used to analyzed the data on stereotype behaviors instead of “Kruskal-Wallis test, followed by the Mann-Whitney U-test”. In addition, F values and P values were reported in details in the revised manuscript.

3. Ratings of stereotyped behavior by one person are too subjective. Examine whether JiTai tablet can inhibit methamphetamine enhanced locomotor activity (video tracking system) or self-administration behaviors.

Response: In our manuscript, a blind manner was used to rate stereotype behaviors to avoid the subjective effects. In general, the stereotype behaviors are closely associated with the psychosis induced by amphetamine-type stimulants including methamphetamine, whereas hyperlocomotion is involved in their stimulative effects and the self-administration of drug in their addiction. Therefore, the manuscript has focused on methamphetamine-induced stereotype behaviors and central dopaminergic system. Certainly, it is a good suggestions and advice. In the next investigation, we should pay attention to hyperactivity and self-administration of methamphetamine.

4. It is not enough to conclude that mixtures of JTT have the protective effects on METH toxicity with limited immunohistochemical or radiographical results. Additional experiments are recommended: in vitro study showing preventive effects of each component in Ji tai tablet on methamphetamine-induced DA cell viability.

Response: As we know, the traditional Chinese medicine is very complicated. The JTT prescription is constituted of 15 herbs (with 101 compounds tentatively identified previously), including Papaveraceae Corydalis (10.2 %); Solanaceae Daturametel (2.18 %); Lamiaceae Salvia Miltiorrhizae (16.87 %); Araliaceae Panaxginsen (2.18 %); Apiaceae Angelica sinensis (10.20 %); Ranunculaceae Aconitum (2.18 %); Myristicaceae Myristicacagayanensis (2.18 %); Asteraceae Aucklandia (5.71 %); Thymelaeaceaceae Aquilaria, (4.35 %); Zingiberaceae Zingiber (2.18 %); Lauroaceae Cinnamomum (2.18 %); Semen Persicae (10.20 %); Pearl powder (13.47 %). So it is very difficult for us to investigate the pharmacological effects of each component in JTT. Our data have indicated the integrative effect of JTT on methamphetamine-induced
neurotoxicity of dopaminergic system in rats, which may be significant for studying traditional Chinese medicine.