Reviewer’s report

Title: Corticosterone mediates electroacupuncture-produced anti-edema in a rat model of inflammation

Version: 1 Date: 8 May 2007

Reviewer: Jian Kong

Reviewer’s report:

General

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Comments to the Authors

The manuscript entitled “corticosterone mediates electroacupuncture-produced anti-edema in a rat model of inflammation” by Li and colleagues investigated the mechanism and efficacy of electroacupuncture on inflammatory arthritis in three linked experiments. The researchers found that electroacupuncture (EA) significantly increased plasma corticosterone levels in CFA rats but not in sham EA controls; and this increasing corticosterone effect could neither be observed in naïve rats when EA was administrated. Further study indicated that an adrenalectomy could block EA-produced anti-edema, but not anti-hyperalgesia. RU486, a prototypical glucocorticoid receptor antagonist, could also diminish EA’s anti-edema effect.

In general, this manuscript is well written, and the study is well designed and well controlled. The results are also sound and solid, and will deepen our understanding of acupuncture mechanisms and therapeutic effects. The reviewer only has some minor comments / suggestions.

1. In the manuscript, the author emphasized that there is no “observable signs of distress.” This is a very important point and the authors may want to further clarify whether EA stimulation intensity is the same for CFC and naïve rats. If this is the case as the authors assumed, then it is possible that the same stimulation intensity may produce different stress levels in CFC and naïve rats (CFC rats may be more sensitive to stimulation). Although stress levels might slightly differ and unlikely change the results, the authors may want to mention this possibility in their discussion.

2. For all figures, please clarify whether your data is presented as mean ± SD or mean ± SE.

3. The final sentence of the abstract seems too strong, as there is always a gap between animal studies and what actually happens in the clinics. Thus, the study can only “suggest” but not “demonstrate” that “EA effects differ in healthy subjects and in those with pathologies.” To be more accurate, the authors may want to modify the second half of the concluding sentence.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests