Reviewer's report

Title: Plasma Metabolomics Study on Chinese Medicine Syndrome Evolution of Heart Failure Rats caused by LAD Ligation

Version: 3 Date: 16 February 2014

Reviewer: Sherry Sachdeva

Reviewer's report:

Comments:

Major Compulsory Revisions

i. Authors mentioned the mice in Echocardiography “The mice were anesthetized with a pentobarbital sodium (1%, 20 mg kg⁻¹ IP) at 4, 7, 14, 21, 28, 45 and 60 days after surgery”. Whether the author used ‘rat or mice model’ for this study. Clear this confusion.

ii. Samples analysed for plasma metabolomics “Methyl cyanide (250 µL) was mixed into 100-µL aliquots of the plasma samples……... in split mode (25:1, v/v)”. Is this is a standard method then provide the reference of this methodology.

iii. Why the 4, 21 and 45 days are chosen for the analysis of the samples? What is their significance?

iv. Experimental design is unclear and requires better presentation.

v. Literature survey is poor and many important and recent references are missing, such as, Li et al., 2010. Zhongguo Zhong Xi Yi Jie He Za Zhi.30 (9): 919-21, Ren et al., 2010 .Zhongguo Zhong Xi Yi Jie He Za Zhi. 30(4): 352-6.

vi. Results for body weight should also included, what changes in body weight takes place at different time periods? No tables or figures have been included in the manuscript providing information regarding this.

vii. Table 1, 2 and 3 symbols of statistics are missing. What this # arrows signify. Is these arrows for increase and decrease, then how many fold or percentage change noted must be denoted by double arrows or some other symbols.

viii. In Fig-7, author mentioned the Venn diagrammatic representation of plasma metabolite changes at the time of operation. It should be discussed in results and what conclusion drawn from this figure.

Minor Essential Revisions

i. Conclusion: Seems to be too vague and lengthy. Should be more crisp and concise.

ii. Discussion requires improvement. Also it should be shortened as it is unnecessary lengthy and redundant.

iii. Heating rate ( / min), temperature ( ) etc. mentioned at many places in the manuscript. Check it properly.
Discretionary Revisions
i. Authors should also focussed on Ultrasonic cardiographic (USCG) parameters, including left ventricular end-systolic diameter (LVEDs), left ventricular end-diastolic diameter (LVEDd) etc were measured for supporting their results of Heart failure.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

NO