Reviewer's report

Title: The Effects of apoptosis vulnerability markers on the myocardium in depression after myocardial infarction

Version: 3 Date: 3 August 2012

Reviewer: Lucia Carboni

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The revised version of the manuscript now entitled “The Effects of apoptosis vulnerability markers on the myocardium in depression after myocardial infarction” by Wang et al. shows many improvements in comparison to the original submission, but additional changes are still needed.

Major compulsory revisions

1. Experimental design

The point about experimental design was not exhaustively addressed. In the previous review, I requested to report which were the criteria that the authors used to attribute a MI animal to the post-MI-depression versus the MI group. In the section entitled Subjects, the authors state “The model of post-MI depression in which decreased movement and anhedonic-like state occurred in 7 out of 20 myocardial infarction rats in our experiment.” Which were the cut-off levels that were adopted to define “decreased movement” and “anhedonic-like states”? These should be reported in the Methods. (e.g. in Mallei et al., Neuropharmacology. 2011;60:1243-53 the authors split the experimental animals into LH and NLH: in section 2.2.1 the criteria for selection were reported).

2. Choice and description of the methods

The issue that: “Using RT PCR as a quantitative method for measuring the level of gene expression is not adequate, since quantitative real time RT PCR methods are now available. End-point RT PCR as adopted in this study is not sufficiently quantitative to allow accurate comparisons of expression levels” was not addressed. Addressing this issue would require additional experiments (on the same samples) using real-time RT PCR. My advice is to perform the experiments, but I leave the final decision to the Editor. At least, caveats should be added in the limitations of the study.

3. Results

Tables 3 and 4 convey the same message as Fig. 3, therefore they are redundant. In addition, measure units are missing in Tables 3-4. My advice is to remove Tables 3-4.

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