Reviewer's report

Title: Propofol inhibits the release of interleukin-6, 8 and tumor necrosis factor-α correlating with high-mobility group box 1 expression in lipopolysaccharides-stimulated RAW 264.7 cells

Version: 0 Date: 27 Aug 2017

Reviewer: Hanan Khafagy

Reviewer's report:

Manuscript entitled: Propofol inhibits the release of IL-6, IL-8 and TNF-α correlating with HMGB1 expression in LPS-stimulated RAW 264.7 cells

Title:
Many abbreviations in title are not favorable.

Abstract:
The abstract is presented in structured form but also many abbreviations are mentioned without telling the full term.

Background:
- In page 3, line 5: The authors mentioned: "Numerous studies based on models" then they put one reference number [1].
- In page 3, line 41: They stated: "production of chemokine adhesion molecules (ICAM-1, VCAM-1)" the abbreviations are not fully mentioned nor they are valuable to be written here.
- TLR-4, NF-κB, p38: These abbreviations should be fully termed on first appearance in the text.
- Please add hypothesis and primary & secondary outcomes.

Material and Methods:
Western blotting: PBS, BSA; please mention full terms of abbreviations.

Results:
- The data should be represented by one mean and not repeated in text, tables and legends of figures.
For example in page 7, they stated in result text: We found that the absorbance value of HMGB1 protein for western blotting in blank control group was 36010±2550 and LPS intervention group was 71070±2178, suggesting that the expression of HMGB1 in LPS intervention group was higher than that in blank control group (p=0.001) (Fig. 1A). The figures in yellow color are enough to be mentioned in table 1.
- Addition of propofol down-regulated the expression of LPS-stimulated HMGB1 in page 7, line 27- 28: As shown in Table 1, compared with the LPS intervention group (36010±2550), this figure is incorrect and the correct one is 71070±2178 from table 1.
In addition, the expression of HMGB1 in the propofol high dose group (59970±2453) was lower than that in the low dose group (52470±2018) (p=0.004), Please add (Table 1).

Moreover, the level of TNF-α in LPS intervention group (34.54±8.61 pg.mL-1) 2102.34±150.60 was also up-regulated, compared with the blank control group (34.54±8.61 pg.mL-1) 213.20±40.09 after LPS stimulation (p<0.001) (Table 4, Fig. 3C). Yellow figures are wrong and the correct figures are written in red color.

- Unites should be represented in one way either " / "or "-1"
250ng/ml LPS ng.mL-1

Discussion:
- Very long introduction before entering the actual discussion and there is a repetition of background where there is no need for this prolongation.
- In page 10, lines 30- 35: The authors reported: Recent studies have found HMGB1 as an important inflammatory mediator and proinflammatory cytokine, which links in response networks of sepsis proinflammatory cytokine [13]. Reference [13] 1999 is not recent and the term studies means more than one reference.
- Similarly in page 10, lines 44- 49: A growing number of studies have demonstrated HMGB1 is a cytokine that can mediate inflammation and is a potential therapeutic target in experimental models of sepsis [3]. Should be more than one reference.
- The same in page 11, lines 10- 16: A large number of laboratory studies have shown that as an oxygen free radical scavenger, propofol can inhibit lipid peroxidation, regulate antioxidant enzyme system, increase the antioxidant capacity of tissues and cells [15].
- Also in page 11, lines 27- 38: Studies have shown that HMGB1 can induce the synthesis and the secretion of inflammatory mediators in onocytes/macrophages, neutrophils and dendritic cells, these mediators can also strengthen the effect of HMGB1 secretion, forming a complex regulating secretion network of cytokine [17].
- In page 13 line 7: The results suggests should be The results suggest.
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

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