Reviewer's report

Title: Granulocyte colony-stimulating factor attenuates myocardial remodeling and ventricular arrhythmia susceptibility via the JAK2-STAT3 pathway in a rabbit model of coronary microembolization

Version: 0 Date: 04 Sep 2019

Reviewer: Xiang-Jian Chen

Reviewer's report:

Method:

Line 137-142: The sham and CME groups should be received the same volume of dissolvent of G-CSF by subcutaneous injection or intraperitoneal injection for 6 days. The treatment only lasted for 6 days after surgery, and the end of the animal experiments was 2 weeks after surgery, Why?

Line 180-182: Why the parafomed sections were stored in liquid nitrogen?

Line 185-188: the description of the procedure of HE-staining is wrong.

Line 203-215: There are many errors and suspicions in the description of IHC. The tissue is from the rabbit. Why the sources of primary antibodies were chosen from the rabbit (the same species with the tissue) and the second antibody is goat anti-rabbit? It would result in false positive. The DAB is not conjugated to HRP.

Line 217-237: There are many errors and suspicions in the description of WB. Especially the choose of antibodies. For example, the t-stat3 and p-stat3 antibodies (SC-8019, SC-8059) are all from mouse, and are not recommended to detect stat3 of rabbit in the Datasheet of producer. And the secondary antibody would not be goat anti-rabbit antibody for these two antibodies. The authors need to completely check the information of antibodies.

Line 239: Statistics: The authors claimed that some values were compared between pre-surgical and 2-week after surgery. Self-control t-test should be used.

Results

Line 253: The authors claimed " Compared with the pre-surgical value, body weight was significantly lower at 2 weeks after surgery in the CME group (P < 0.01) but showed no significant changes in the other groups". That means there was self-comparison between the pre-surgical and 2-week after surgery. But in the corresponding Figure 1 (including legends, Line 580-587), the indicated" *P < 0.05, **P < 0.01 vs. Sham group; ##P < 0.01 vs.CME group". The comparison between the pre-surgical and 2-week after surgery is void.
Line 265-269: The same problem in the description of LVED, LVES, LVEF, FS "Compared with the values before surgery……"

Figures

All the histological pictures have no clear resolution and bar (Fig 3, Fig4).

The Figures and paper did not explain the real number of each group. In Line 585, 595, 607,616, 623,631,: The authors claimed that "Data are shown as the mean± SD of at least 3 independent experiments". It is NOT the n of each group.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

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