Reviewer's report

Title: Vitamin E and telmisartan attenuates doxorubicin induced cardiac injury in rat through down regulation of inflammatory response

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Reviewer: German Gonzalez

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Manuscript Title: Vitamin E and telmisartan attenuates doxorubicin induced cardiac injury in rat through down regulation of inflammatory response
Najah Hadi M. et al

Comments to Authors

In this manuscript Najah Hadi M et al studied in a rat´s model of cardiotoxicity induced by Doxorubicin the protective role of vitamin E and telmisartan on cardiac injury and ventricular function. They found that both vitamin E and telmisartan improved ventricular function as evaluated by the ejection fraction and reducing end systolic and diastolic pressure and volume. They also found that vitamin E and Telmisartan reduced cardiac inflammatory infiltration, cytokines expression and cardiac enzyme indicators like LDH, CK-MB and troponin I. Although, conclusions are supported by results, the manuscript looks incomplete and there are some methodological aspects that should be revised.

Major Comments

1) The hypothesis is not clearly stated.

2) What is the rationality of using telmisartan for comparing with vitamin E?

3) Have Telmisartan (1mg/kg) and Vitamin E similar antioxidant effects? If so this should be determine or discussed.

4) It’s important to show the animals characteristics at the end of the protocol like body weight. Heart weight, heart weight/body weight ratio, lung weight, etc

5) Mostly of results shows that vitamin E or telmisartan attenuated but not completely reverted the cardiotoxicity effect of Doxorubicin. I think that should be interesting to study and show if Vitamin E and Telmisartan have additive effects.

6) Methods: The authors did not specify in detail neither the antibody used for labeling macrophages and neutrophils nor concentration used or Company etc. On the other hand, how the inflammatory cells infiltration was quantified?

7) Figure 1 shows macrophages infiltration. However in the legend is state: “Show infiltration of cardiac CD3+, CD8a+ and CD11b+ cells were quantified by using immunostaining and digital image analysis for macrophage ....”

5.1.- CD3 is a marker of Lymphocytes and CD8 is glycoprotein membrane expressed on Helper T lymphocytes but no macrophages.
5.2.- CD11b is a marker of integrins, again it is no for macrophages.

5.3.- in methods it is mentioned that PMN infiltration was quantified, however the result of this quantification is not shown.

6) Does the doses of telmisartan reduce the blood pressure. Blood pressure measurements should be shown.

Level of interest: An article of importance in its field

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