Reviewer’s report

Title: Ticagrelor and clopidogrel suppress NF-kB signaling pathway to alleviate LPS-induced dysfunction in vein endothelial cells

Version: 1 Date: 30 Sep 2019

Reviewer: Rita Pavasini

Reviewer's report:

This is an in vitro study investigating the effect of ticagrelor and clopidogrel on Nk-Kb. I have major concerns related to methods:

There are several typo in abstract. Please revise.

The sentence "The results showed that ticagrelor and clopidogrel can inhibit the degradation of IKBα and phosphorylation of p65, prevent p65 from entering the nucleus, reduce the production of TNFα, IL-1, IL-8, IL-6 and IL-2, and reduce the changes in life activities caused by LPS, such as cell viability, apoptosis, cell cycle, cell migration ability, and vascular formation. These results provide a new theoretical basis for ticagrelor and clopidogrel to cure ACS" has no sense in the context of introduction. It could be useful in conclusion.

It is not clear why authors talk about a possible mechanism of ticagrelor and clopidogrel on NF-kB in the context of acute coronary syndromes. In a paper of Campo et al. (Thromb Haemost. 2017 Mar 23;117(6):1208-1216). The effect of ticagrelor and clopidogrel was analyzed and compared in patients with stable coronary artery disease and COPD. HUVEC were incubated with patients serum and this justify the fact to say that the two drugs act in endothelial dysfunction in a specific clinical context. So here it is not clear why talking about acute coronary syndromes and not of stable patients. Is the model studied a model of acute coronary syndromes?

Interestingly in the already mentioned study (Thromb Haemost. 2017 Mar 23;117(6):1208-1216) the level of 29 tested citokines and chemochines (EGF, Eotaxin, G-CSF, GM-CSF, IFN-α2, IFN-γ, IL-10, IL-12(p40), IL-12(p70), IL-13, IL-15, IL-17α, IL-1 receptor antagonist (ra), IL-1α, IL-1β, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IP-10 (CXCL10), MCP-1, MIP-1α, MIP-1β, TNF-α, TNF-β, and VEGF) and their level did not change between ticagrelor and clopidogrel, neither over time. So how can authors justify the differences found?

Were there any difference between ticagrelor and clopidogrel in results obtained? Considering the well known pleiotropic effect of ticagrelor, it is surprising that the effect of the two drugs is similar.
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.

No

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

No

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

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