Reviewer’s report

Title: Synthesis of crocetin derivatives and their potent inhibition in multiple tumor cells proliferation and inflammatory property of macrophage

Version: 2 Date: 26 Oct 2019

Reviewer: S. Zahra Bathaie

Reviewer's report:

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Manuscript Number: BCAM-D-19-00111R2

Title: Synthesis of crocetin derivatives and their potent inhibitory effects in multiple tumor cells proliferation and anti-inflammation in macrophage

The manuscript aimed to synthesize some soluble crocetin derivatives and compare their anticancer effect with crocetin. The manuscript contains some new data but, in my opinion, the manuscript in the present format is not acceptable for publication in the BMC Comp. & Alt. Med.

Major Comments

1- The manuscript lacks any characterization for the synthesized materials.

2- The t-test is not suitable for statistical analysis of the obtained data.
   a. It should be done with ANOVA.
   b. Are there any differences between the studied groups?

3- NO determination was performed by Griess method. Is it the total NO, NO2 or NO3? It should be cleared.
4- NO determination in the macrophages is not enough to estimate the anti-inflammatory effect, as claimed in the title.

Minor comments

1- The symbol of micro (µ) in the figures was typed as "u"; as well as in the text, e.g. L. 5, P. 8 (ug/ml).

2- The manuscript is full of dictation and grammatical errors.

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.

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 recommend additional statistical review

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

Needs some language corrections before being published

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