Reviewer's report

Title: Cytotoxicity of Eupatorium cannabinum L. extracts against colon cancer cells and interactions with Bisphenol A and Doxorubicin

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Reviewer: Prabha Balaram

Reviewer's report:

1. Title: The title depicts the activity of the extracts of the plant while the text and the work reflects only the activity of the ethanolic extracts. Further, no comparison has even been made with the total extract or any other extracts to warrant this title.

2. Language: Syntax and grammatical errors are present in many areas.

3. Doxorubicin acts by upregulating apoptotic process. In this study the authors show that EcEE upregulates bcl-xL which may lead to decreased apoptosis. It is surprising to see that in combination there is an increased reduction in viability when the mechanisms appear to contrasting. This requires to be explained further. The role of necrosis is not explained which can lead to similar feature such as nuclear condensation and anomaly. This aspect needs further explanation.

4. It is seen in figures on viability, especially 3b, the viability at 24 and 48 hours remains the same. Ethanol is known to cause cell death and it would increase with time of incubation. This aspect needs to be explained.

5. Figure 3b and 4b has some numbers on the x-axis given in brackets. It is not made clear what these numbers mean. This has to be explained either in the results or in the legend of the figures.

6. Figure 3b. The number of abnormal mitosis are higher at 24 hours of incubation when incubated with EcEE when compared to that at 48 hours. This seems unlikely and needs to be rechecked.

Level of interest: An article whose findings are important to those with closely related research interests

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