Reviewer's report

Title: Essential oil from Xylopia frutescens Aubl. reduces cytosolic calcium levels on guinea pig ileum: mechanism underlying its spasmolytic potential

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Reviewer: Andrelina N Coelho-de-Souza

Reviewer's report:

MAJOR REVISION:
The pharmaceutical properties of herbs are partly attributed to its essential oils. Since the chemical composition of essential oils is strongly influenced by environmental factors such as, time of collection, season and region where the plant is located, the work publication is absolutely unacceptable without author having made a careful analysis of chemical composition of the essential oil and including it on the text”. Without this analysis there is no referential for reproducibility of the results.

MINOR REVISIONS:
The pharmacological effect (antispasmodic) of essential oil (XF-EO) occurred in a relatively high concentration, so it is important to know the oil yield to propose that this effect is found in tea at effective concentration and suggest validation of the use in alternative medicine, as it is expected for this journal

The figures could be grouped into panels. For example, Figures 1 and 2 could be terminals "a" and "b" of the same figure

Since a current blocking Ca2+ was not shown through electrophysiological patch clamp experiments, the conclusion that the essential oil (XF-EO) blocks Ca2+ channels should be cautious and appear only as a suggestion. In smooth muscle cells, including gastrointestinal smooth muscle, the mechanisms that regulate cytoplasmic Ca2+ concentration involve a cascade of events among them intracellular stores release. Essential oils are lipid soluble substances and thus can cross the cell membrane and act at any signaling cascade point like interfering with the release of Ca2+ from the sarcoplasmic reticulum.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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.