Reviewer’s report

Title: Antibacterial activities of selected Cameroonian spices and their synergistic effects with antibiotics against multidrug-resistant phenotypes

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Reviewer: Farrukh Aqil

Reviewer’s report:

The submitted manuscript by Fankam et al. studied the antibacterial activities of the methanol extracts of eleven Cameroonian spices on a panel of twenty nine Gram negative bacteria including multiple drug resistant strains. Although the authors showed that selected Cameroonian medicinal plants have antibacterial activity and synergism with some antibiotics, the presentation of results of this manuscript were not well presented. Moreover, some data is presented as supplementary material and in my opinion, that data is actually required in the manuscript. I have many concerns before this manuscript warrants any publication in BMC Complimentary and Alternative Medicine.

Why author has tested synergism with -naphthylamide (PAßN), a efflux pump inhibitor. Are tested strains specific to shown resistance by that mechanism? Or just to explore the properties of the plants.

Phytochemical characterization of these plants has been done by color test. It would have been better if author characterize at least selected plant extracts further for actual signatures of these phytocompounds by HPLC/LCMS or GCMS etc.

Method and discussion sections of the manuscript should be elaborated. Author(s) has shown phytochemical characterization, this section should be elaborate in the method section (only one reference “Harborne 1973” is not good enough), and further results should be discussed in the light of phytocompounds detected.

What was the total volume of the media used for the susceptibility testing?

Manuscript should be checked for language corrections as many grammatical errors can be seen throughout the manuscript. Also author should be careful while italicizing the words.

Specific comments

In general the numbers of references are too many. Try to keep minimum number of references.

Table 1: font size should be increased as per the journal guidelines; it is difficult to follow the table. Traditional uses of the plants can be deleted as many manuscript, reviews and books have been reported traditional uses.
Table 3: How author calculated yield of the extracts as author has reported extracts was in paste. I believe yield should be calculated on dry weight basis. Anthocyanines should be corrected as Anthocyanins.

Table 4: Over all activity shown in this table is not very encouraging and it’s around 1 mg/ml for most of the extracts against most of the bacteria. Author should calculate FIC index for the synergism.

Table 5: Was there any rationale for the selection of the antibiotics used. Author has mentioned >128, >4, >8 and >16 fold synergism against AG100, how was it calculated when IC50 was <2 µg/ml.

What is 0.5? Is it 0.5 if yes please correct throughout the manuscript. Please remove all the commas from all the data points in all the tables.

**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