Reviewer's report

Title: Antibacterial effect of crude extract and metabolites of Phytolacca americana on pathogens responsible for periodontal inflammatory diseases and dental caries

Version: 2 Date: 27 July 2014

Reviewer: Nihar R Singh

Reviewer's report:

In this paper authors aimed to evaluate the anti-bacterial potential of aerial parts of the Phytolacca americana L. towards oral pathogen. Given the potential importance of herbal extracts towards suppressing the growth of oral pathogen, the paper provides new information on the role of Phytolacca americana L. extracts.

Necessary revision:

Methods: Authors have mentioned the identification of P. americana L. by taxonomist and storing of the specimen. It will be better if authors provide the name of the identifier and voucher number or the passport data of specimen deposited.

Methods: Authors should specify which part of the plants they consider as aerial part, that are used for the preparation of plant extracts. Also, Authors have not cited any reference for preparation of crude plant extract. Is this methods of extraction has been validated or standardised earlier by authors.

Results: The figure 2 can be compiled to one. The graphs shows no anti-bacterial activity of natural compounds present in P. americana below 4 µg/µl. Hence, representing them in the figure can be avoided. It will be better if authors can reframe the figure 2. Also, authors can use P4 and P5 instead of P5 and P6.

Discretionary Revisions

Although the results indicates a significant anti-bacterial role of crude extracts of P. americana. Authors can further confirm the findings with agar diffusion assay and/or MIC, MBC assay.

Some minor corrections to be made:

Line 118 - 17.24% is the yield of the extract?

Line 95 and line 174 - seems to be contradictory as authors mentioning little evidence of the nature of bioactive compounds present in P. americana vs presence of different types of natural compounds.
Level of interest: An article whose findings are important to those with closely related research interests

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