Reviewer's report

Title: In vitro antimicrobial activity and HPTLC analysis of hydroalcoholic seed extract of Nymphaea nouchali Burm. f.

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Reviewer: Ashwini Mishra

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Comments to Authors:

The study entitled “In vitro antimicrobial activity and HPTLC analysis of hydroalcoholic seed extract of Nymphaea nouchali Burm. f.” by Mabel Parimala and Francis Gricilda Shoba does not appear to be novel. Similar study has already been done by Dash et.al. (Annals of Clinical Microbiology and Antimicrobials 2013, 12:27, doi: 10.1186/1476-0711-12-27) where they have looked at the antibacterial potency of Nymphaea nouchali flower extracts in different solvents. Author’s previous works as described in references, #12 and #13, also have studied the antioxidant properties and antidiabetic potential respectively, of seed extract in 70% ethanol from the same plant. The current study is mere extension of previous works with some extra data using HPTLC. Besides, authors have not emphasized enough the significance of HPTLC analysis of the polyphenolic compounds from the extract and their role in antimicrobial activity.

Conceptually, the manuscript has been laid out well and the paper has been written very clearly. However, there are some confusing words. For example, authors have consistently used the words in the current and the previous works as well, like, 70% ethanol and 70% hydroethanol in the preparation of the seed extract from Nymphaea nouchali. These words essentially convey the same, that is, the extract has been prepared using 70% (v/v) concentration of alcohol/ethanol in water. Simply writing extract preparation in 70% ethanol suffices. Besides, there are no statistical analyses done for the data presented in the paper. There are no figures showing culture plates reflecting inhibition zones.

Major Compulsory Revisions

1. Authors must present the culture plates as a figure to show the inhibition zones.

2. Authors must also show the pictures of Micoplates reflecting color changes in determining the minimum inhibitory concentration (MIC).

3. The axes for the HPTLC traces (figures 2-4) must be labeled clearly.

4. Show the error bars for the figure1.
Minor Essential Revisions

On page 6. Different concentrations (1000, 500, 250, 125, 62.5 µg/ml) of NHS extract in DMSO were prepared...... What concentration of DMSO was used?

On page 9. The MIC values for the remaining organisms ranged..... The word –micro preceding organism has been left out. Should be inserted.

On page 11, ....microorganisms, and among them flavonols, tannins and flavanols.. Delete repeated flavonols.

Level of interest: An article of importance in its field

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.