Reviewer's report

Title: Assessment of phytochemicals, antioxidant, anti-lipid peroxidation and anti-hemolytic activity of extract and various fractions of Maytenus royleanus leaves

Version: 2 Date: 18 February 2013

Reviewer: Ramkumar Kunka Mohanram

Reviewer's report:

This manuscript describes the antioxidant, and anti-hemolytic effect of various fractions of Maytenus royleanus leaves. Main reservations on the quality of the publication of Shabbir et al, concern the adopted methodology especially chemical in vitro assays with no direct connection to traditional uses and lack of positive controls. Nowadays, the evaluation of new natural antioxidants is considered as a very hot area of research, where simple screenings of plant extracts, without identification of molecular targets and mechanisms of action, are weak contributions.

Major Compulsory Revisions

1. Among the wide array of medicinal plants listed and its reported antioxidant potential, what is the novelty of the present study?
2. What is the rationale for choosing successive extraction procedure for this study?
3. The authors should clarify whether the extraction of phenolics or flavonoids were employed to screen the antioxidant potential. If so, provide details in the methods section.
4. In the Statistical analysis section, page 12, the authors have given that the experiments were performed in triplicates. The question is whether the authors performed multiple corrections for the values observed? If yes, please mention in the results section.
5. The authors have not included the standard deviation in the graphs?
6. The authors have not presented the chemical constituents of the leaf extract in the present study?
7. The authors conclude that methanol, ethyl acetate and n-butanol fraction shows higher therapeutic potential than other others. This conclusion should be further documented with additional evidences?
8. The reference section of this manuscript should be updated
9. The GC-MS analysis of the extract should be included for further strengthening of this manuscript

Minor Essential Revisions
10. The Materials and methods section should be expanded. For eg: Details regarding the instruments or the reagents used for the study should be mentioned?

11. The authors should carefully edit the entire manuscript for grammatical as well as typographical errors?

**Level of interest:** An article of limited interest

**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.