Reviewer's report

Title: Evaluation of the effects of 80% methanolic leaf extract of Caylusea abyssinica (fresen.) fisch. & mey on glucose handling in normal, glucose loaded and diabetic rodents

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Reviewer: PARDEEP kumar

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Manuscript entitled “Evaluation of the effects of 80% methanolic leaf extract of Caylusea abyssinica (fresen.) fisch. & mey on glucose handling in normal, glucose loaded and diabetic rodents

Abstract: It is written very poorly. A good abstract should have clear aims, objectives, methods, results and conclusions. Abstract needs to be revised and must include brief findings and its interpretation.

Introduction:
There should be some latest references in introduction; Mostly references are more than 10 years old. First page is just like a textbook or thesis chapter and authors should check guidelines, how to write abstract for manuscript. Authors have not mention anything about the phytochemical and anti-diabetic compounds present in Caylusea abyssinica? Last paragraph should have what is your main aims and objectives?
The authors spoke to antidiabetic, hypoglycemic and oral glucose tolerance, but is still unclear how this relates to the problems associated with diabetes. It appears to be a list markers and events that are disjointed and unclear as to their importance. It barely registers as a pilot study, let alone a publishable piece of work that will have any significant impact in the field. It is unclear as to the novelty of the current manuscript. Authors used few parameters to confirm the antidiabetic properties of Caylusea abyssinica, which is not sufficient for this study. Authors should added few more parameters and perform some molecular work.

Which plant family Caylusea abyssinica, belong?
Which part of plant body was used for present experiments?
How many animals were per cage?

Material methods section is written very poorly and it is very difficult to repeat the experiments due to little information with unrelated references. Authors should also provide latest or modified reference for methods. Authors should provides units of various parameters taken, in methods section.

There is not clear how many numbers of animals were used in present study? There was mortality with diabetes induction and how did authors ensure that all total animals taken in present study will have exact numbers of diabetes and
normal animals???. This is quite not clear to me. For experiments diabetes experiments one should have more numbers of animals due to higher mortality chances during treatment.

Why authors used male Wistar rats? What can be possible changes in results and conclusions if experiments performed on females?

How many times experiment were repeated? The results were presented as mean ± SEM. What does it mean? Authors should mention number of values taken? Number of animals used for each group should be clearly mentioned for each parameter.

STZ induced diabetes in rats take sometimes to stabilize blood glucose level and also found to be biphasic in nature. Hence authors must state, after how many days following STZ injection, rats were used for the evaluation of antidiabetic activity.

The mode of collection of blood samples from experimental rats not been described properly?

Results: This section having lots of mistakes and results are not clear. Results represented very poorly, according to guidelines of journal. The F and p values from the ANOVAs need to be stated, not just the results of the post-hoc tests. Authors should perform two way ANOVA to analysis changes within groups. The Results should be presented more quantitatively with actual numbers followed by statistical significance for each of the major findings.

Discussion section is so confusing and written very poorly. It should be shorten to half. The writing style needs to be improved. Some sentences are long and cumbersome.

Conclusion has been drawn very poorly.

The paper is very carelessly written with the improper experimental design, incomplete description of methodologies, confused statements. The authors have not taken care to read the manuscript before sending it. English needs improvement in all sections, so authors should thoroughly go through for correction of language, syntax specifications as instructed.

**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