Reviewer’s report

Title: High fat diet fed obese rats responded well to Terminalia paniculata extract in reducing body weights

Version: 2 Date: 26 November 2014

Reviewer: JYOTIRMOY GHOSH

Reviewer’s report:

Mopuri et al reported therapeutic effect of ethanolic extract of Terminalia paniculata in high fat diet fed obese rats. The manuscript needs lot of improvements and there are some severe issues to be corrected. The detailed comments are provided below.

Major comments:
1. Mention the age of the rats used for experimental purpose.
2. Administration of the extract is pre-treatment or post-treatment?
4. In extract, author reported the presence of Ellagic acid, Arjunolic acid, Galloylarjunolic acid, Termilignan and Butalinic acid. Among them which one is primarily responsible for therapeutic effect? Author should discuss in detail. The LC-MS/MS spectrum is not clear. Author should provide high resolution image.
5. In line 149; “At the end of the experiment” mention the number of days.
6. Page 6 line 150; How the anesthesia was performed. It should be clearly mentioned.
7. In line 206; Experimental animals were anesthetized with isoflurane and sacrificed. What is the dose of isoflurane used?
8. Provide reference for collection of plasma or serum by centrifugation at 2500 rpm for 15 min.
9. In line 153; “Body composition of experimental animals was assessed” It was done under anesthetic condition or normal condition?
10. Whether glucose tolerance test and blood collection were done on the same day i.e at the end of the experiment? Among the same group or different group? Compare and clarify with the previous paragraph also.
11. Provide reference for oral glucose tolerance test protocol as mentioned in the manuscript.
12. There is no uniformity in sacrificing animals throughout the experiment. The procedure for collection of blood and volume of blood collected are also not clear. There is lack of information regarding repeated withdrawal of blood from animals which makes the manuscript complicated and difficult to understand.
13. Explain the parametric or non-parametric method used for ANOVA statistical analyses in the foot note of table 2.

14. Author must present the daily food intake and weekly body weight in two separate graphs.

15. Data presented in table 2 are confusing. Some data are measured in weeks, some data at the end of the experiment period. Some data are after sacrificing the animals. Kindly mention it clearly in the foot note. Author should present data accordingly to avoid confusion to the readers.

16. In the histopathology slide photographs author should mention the scale/magnification. Fat deposits are not marked properly.

Minor comments:
1. In the title “Terminalia paniculata” will be in italic and uniformity should be maintained throughout the whole manuscript.
2. The title should be rewritten and precise.
3. In title correct the term “weights”.
4. In high fat diet composition mention the company details from where it was purchased.
5. In line 158; mention the number of days.
6. Discussion part should be concise and relevant with the experimental results. It must be rewritten.
7. There are many grammatical and typographical errors throughout the manuscript.

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.

Declaration of competing interests:

I declare that I have no competing interests.