Reviewer’s report

Title: Camel Milk Ameliorates Steatohepatitis, Insulin Resistance and Lipid Peroxidation in Experimental Non Alcoholic Fatty Liver Disease

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Reviewer: Jia Xiao

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In this manuscript, Korish and Arafah demonstrated that consumption of camel milk ameliorated typical NAFLD features, including hyperlipidemia, steatosis, oxidative stress, impaired liver function, and so-called insulin resistance in a rat NASH model. Generally, it is a good work with solid data support. Results from biochemical, histological and molecular measurements answered the hypothesis proposed by the authors. However, the manuscript should be thoroughly improved before its possible acceptance by the journal. Here are the points:

Major compulsory points:

1. Although consumption of camel milk exhibited remarkable ameliorative effects on NASH induced hepatic abnormalities. The exact improving mechanism (i.e. the effective monomer or interactions between different monomers) is unclear. I understand that to elucidate this point needs a lot of additional works. So, please at least state this limitation in DISCUSSION.

2. To demonstrate the alleviative effects of camel milk on insulin resistance and glucose metabolism. ITT and GTT experiments are needed. Figure 2 itself cannot draw such conclusion.

3. To further examine the ameliorative effects of camel milk on lipid profile and metabolism. Expression of key markers should be added (e.g. SREBP-1c and adiponectin).

4. It is stated in the DISCUSSION section that camel milk improved steatohepatitis. But they did not measure the markers of inflammation. Hepatic level of TNF-a and ILs should be added.

Minor essential points:

1. Authors should make consistence of the word “non-alcoholic” instead of “non alcoholic”.

2. In ABSTRACT, expand the abbreviations of HDL and LDL.

3. Last sentence of the 3rd paragraph of INTRODUCTION “Conversely, certain food types and animal products are used in traditional and alternative medicine to treat some diseases.” Several examples with appropriate citations should be added.
4. Last paragraph of INTRODUCTION is not well-written. Authors should clearly state the research gap and the main finding of this study.
5. Body weight data of rats should be added in the first section of METHODS.
6. Authors should justify the reason of choosing male rats instead of female gender or mixed genders.
7. In METHODS, when introduce the recipe of HFD, authors should indicate the energy percentage from fat.
8. For the analysis of histological data, the NAFLD activity score should be added (PMID: 21319198).
9. Please change the dimension and direction of Figure 4. Its current form is difficult to read.
10. In the first paragraph of DISCUSSION, authors stated that “Life style modification and acquiring healthy food habits are gold standard parameters to control the disease and minimize the progression to NASH and cirrhosis [29].” It is not correct. Lifestyle modification and maintaining good habit are most recognized treating method for NAFLD but not the “gold standard”. Please refer to some recent reviews for details (e.g. PMID: 23558065).
11. There are a lot of grammatical and typing errors throughout the manuscript. Authors should thoroughly check the manuscript before re-submission.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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