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OPEN PEER REVIEW

Palm Olein Oil Effect on the Heart Tissue of Male Rats

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

4 comments · 2 Jul 2023 – 23 Jul 2023

Ali Ghanbari Reviewer

MAJOR REVISION 2 Jul 2023

1- In the abstract:
A- What are the differences between olein palm oil and date olein?
B- Why did you use 7.5% (W?W) ghee oil instead of 10 and 20% (W/W)?
C- Why did you not use heated 10% (W/W) palm olein for comparison with the unheated palm olein group?
D- Please replace "Fresh" with "fresh".
E- Please rewrite this sentence: "In fact, the results show the negative effect of the dose
and heat factor on the harmful effects of palm oil, olein, and also ghee oil It has a positive
effect on heart tissue."
2- In the introduction:
A- The authors should describe the beneficial/harmful effects of ghee oil.
B- Why did the authors add the statement about red palm oil at the end of the introduction? They did not work on this type of oil.
C- The aim of the study is missing.

3- In M&M:
A- (("Experimental designing and grouping:The rats were randomly divided into five groups (eight rats in each group) and treated as bellows for 6 months after weighting. The groups were as follows:")) Choose "as below" or "as follow". One of them is enough. Moreover, the description of the groups after this statement is missing.
B- The animals were alive during sampling! Please add the method of sacrifice.
C- What criteria were chosen to distinguish differences between groups? Rewrite HISTOLOGICAL STUDY OF HEART TISSUE in accordance with a classified qualitative histological method for addressing pathological changes.
4- In the results:
Overall, the descriptions of histological changes did not correspond to the pictures. For example, (("nuclei of the cells shriveled and shrunk")) cannot be seen in the pictures. Please indicate the histological changes in the pictures with arrows or other markers.

5- In the discussion:
A- "In this research, body weight values on the day of the end of the experiment show that there was a....." Did you evaluate body weight? In M&M and the results, there was no related examination or data, and there was no statistical analysis.
B- "Repeated heating of palm oil for a long time and high temperature causes the production of free radicals, and antioxidants such as vitamin E and carotenes are eventually destroyed during the heating process." This sentence is ambiguous and needs to be rewritten.
C- The discussion section should be rewritten.

Mona Pazhouhi Reviewer

MINOR REVISION 23 Jul 2023

The manuscript entitled "Investigating the effect of palm olein oil on the heart of male rats" reports that ghee oil has beneficial effects compared to heated palm oil.
This manuscript contains a couple of new findings that would be important for medical research and the field

of cardiology, and the quality of this manuscript is sufficient for acceptance. The explanation seems to be reasonable. Overall, experiments in this manuscript seem to be well documented. In addition, the data were completely clear. However, there are some grammatical errors in the manuscript that need to be corrected. Therefore, since the manuscript was well documented, it is recommended for acceptance in this journal after correction of the minor points.

1- It is better to change the title as follows: Palm olein oil effect on the heart tissue of male rats
2- Expand the discussion of the manuscript.

Associate Editor MAJOR REVISION 23 Jul 2023

Major Revision

Editor-in-Chief MAJOR REVISION 23 Jul 2023

Major Revision

2

Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

In the name of God

Hello and don't be tired, dear editor and referee, I appreciate and thank you for referee

Defects were checked

Reviewer 1:

1.

A. Palm olein, a vegetable oil obtained from the palm tree fruits, is composed of 50% palmitic acid, 40% oleic acid, and 10% linoleic acid and also Palm oil is an edible vegetable oil derived from the mesocarp (reddish pulp) of the fruit of the oil palms. date palm oil More specifically, it refers to the oil extracted from the seeds of palm date fruits. Date seed oil has many uses and health benefits.

B. Because according to the reference, most of the oils that are used orally* for laboratory animals were 7.5% and we combined the ghee oil with the rats' food.

c. Because the tissue changes in the 10% heated group were not comparable to the 20% heated group and were similar to the control group, our main goal was to investigate the 20% heated group.

D. Was corrected

E. Was corrected

2.

A. Was corrected

B. Deleted

C. added

3.

A. It was mentioned, I highlighted it

B. added

C. Visually compared images, no special criterion was used for comparison

4. Mentioned in the discussion, There are many pictures of the tissus available, if the referee it necessary to send the pictures of all the groups

5.

A. Complete weighing was done before sacrificing the rats as well as after the end of the work

If the referee deems it necessary to present the measurement table.

B. **According to this reference** *Edem D. Palm oil: Biochemical, physiological, nutritional, hematological and toxicological aspects: A review. Plant Foods for Human Nutrition. 2002;57:319-41.

C. New content added

Reviewer 2:

1. Was corrected

2. added

2 Revision 1

4 comments · 30 Jul 2023 – 1 Aug 2023

Referee 1 Reviewer — ACCEPT 30 Jul 2023

The paper is acceptable now.

Mona Pazhouhi Reviewer — ACCEPT 1 Aug 2023

Accept

Associate Editor — ACCEPT 1 Aug 2023

Accept

Editor-in-Chief — ACCEPT 1 Aug 2023

Accept