Manuscript 79460

Response to Reviewers

Dear Editors-in-chief,

Thank you for giving us the opportunity to submit a revised draft of the manuscript "Serum Leptin level in Sudanese Women with Unexplained Infertility and its relationship with some reproductive hormones" for publication in the World Journal of Biological Chemistry. We appreciate the time and effort that you and the reviewers dedicated to providing feedback on our manuscript and are grateful for the insightful comments on and valuable improvements to our paper.

We have incorporated most of the suggestions made by the reviewers. Those changes are highlighted within the manuscript. Please see below, for a point-by-point response to the reviewers' comments and concerns. All page" **P**" and lines "**L**" numbers in read refer to the revised manuscript file with tracked changes.

Here is a point-by-point response to the reviewers' comments and concerns.

Reviewer #1:

Comment: Title: serum leptin level in Sudanese women with unexplained infertility and its relationship with some reproductive hormones. The work is interesting and inspiring to the field of unexplained infertility, and conclusion seems to be fully justified. If the authors consider the following mentioned remarks and further improve the manuscript before submitting the final version, I would like to recommend this paper to be published.

Response: You are welcome!

Comment: There are some major points need to be addressed as follows. 1. The language of the manuscript must be improved before re-submission. Although the meaning is by and large clear, many sentences are incorrect. In particular, there are numerous characters presented in a capital form where these characters should be ordinary form. In addition, some interpunctions are improper.

Response: Thank you for your concern. We tried to check the language quality by the assistant of a native speaker.

Comment: In the introduction section, the description on leptin is tedious and redundant, and not close to the current theme.

Response: I have tried to follow your comments, and I made some changes here. But with all do respect, I think it is very important to mention all this about leptin to fully describe the source of leptin, the primary it sources and secondary sources, how it works on the body in general and specifically on the reproduction process, and finally report the findings of previous studies on the association between leptin and UI in women. So, I think mention it in this order will be better and more understandable for the audience.

Comment: 3. In table 1, I want to know how the 95% CIs were generated.

Response: As you know, there are two options to address the data interval of any group (upper value and lower value), true range and confidence interval range. As all statisticians prefer to use CI instead of the range because it is more accurate (Daniel, W. W., & Cross, C. L. (2018). Biostatistics: a foundation for analysis in the health sciences. Wiley & Nakagawa, S., & Cuthill, I. C. (2007). Effect size, confidence interval and statistical significance: a practical guide for biologists. Biological reviews, 82(4), 591-605.), as a result of this we used STATA software 16 to generate the CI based on

- **For two independent samples**

$$\text{C. I} = (\bar{x}_1 - \bar{x}_2) \pm t_{1-\alpha/2,\ v} \times \text{S. E}(\bar{x}_1 - \bar{x}_2)$$

$$= (\bar{x}_1 - \bar{x}_2) \pm t_{1-\alpha/2,\ v} \times \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}$$

Where;
- s_1 and s_2 are the standard deviations of the groups
- n_1 and n_2 are the sample sizes in each group
- $v = n_1 + n_2 - 2$

this formula:

Comment: 4. For the results in figures 1 and 2, full description should be performed.

Response: Done.

Reviewer #2:

Comment: Manuscript ID: World Journal of Biological Chemistry 79460 Title: Serum Leptin level in Sudanese Women with Unexplained Infertility and its relationship with some reproductive hormones Comment for the authors: The article entitled "Serum Leptin level in Sudanese Women with Unexplained Infertility and its relationship with some reproductive hormones" investigated the role of leptin in the regulation of endocrine and reproductive system. The authors analysed serum levels of leptin and seven other biomarkers in a group of women with unexplained infertility

(IU) that was compared to a control group with fertile women. The results showed that there was statistically significant difference between the two groups for leptin level and all the biomarkers. Moreover, the high leptin level was positively or negatively associated with the examined biomarkers. The results confirm the data of previous works carried out in other countries.

Response: Thank you very much for your comments, we appreciate your time and concern.

Comment: My concerns are listed below: -The aim of the work must be more detailed, highlighting the relationship of leptin levels with other important biomarkers - indicate in "Materials and Methods" the kits used for ELISA.

Response: We have tried to keep up with your comment here **P4-L94-96; P4- 116-117& P6- L161-163.**

Science editor:

Comment: The manuscript has been peer-reviewed, and it' s ready for the first decision.

Language Quality: Grade C (A great deal of language polishing)

Scientific Quality: Grade C (Good)

Response: Thank!

Company editor-in-chief:

Comment: I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Biological Chemistry, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Before final acceptance, uniform presentation should be used for figures showing the same or similar contents; for example, "Figure 1 Pathological changes of atrophic gastritis after treatment. A: ...; B: ...; C: ...; D: ...; E: ...; F: ...; G: ...". Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the

author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2022. Authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content. Before final acceptance, when revising the manuscript, the author must supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript. To this end, authors are advised to apply a new tool, the RCA. RCA is an artificial intelligence technology-based open multidisciplinary citation analysis database. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at: https://www.referencecitationanalysis.com/.

Response: Thank you for the suggestions. We have made the proposed changes in the manuscript.

Additional clarifications

In addition to the above comments, all spelling and grammatical errors pointed out by the reviewers have been corrected. We look forward to hearing from you in due time regarding our submission and to respond to any further questions and comments you may have.

Sincerely, Correspondent author 30/09/2022

1 HOW DO AUTHORS CORRECTLY DEAL WITH THEIR PEER-REVIEW REPORT

AND COMMENTS RAISED BY THE SCIENCE EDITOR? YES or NO

1.1 Authors should reconsider the strengths and weaknesses of their manuscript. [YES]

1.2 Authors should carefully read the peer-review report. [YES]

1.3 Authors should carefully answer reviewers. [YES]

1.4 Authors should carefully format their manuscript. [YES]

1.5 Authors should carefully polish the language of their manuscript. [YES]

2 FIRST SECTION OF WRITING REQUIREMENTS YES or NO

2.1 Title [Serum Leptin level in Sudanese Women with Unexplained Infertility and its relationship with some reproductive hormones]

2.2 Running title [Serum Leptin level in Sudanese Women with Unexplained Infertility]

2.3 Authorship [Abdullah Abdulslam Abdullah, Musa Ahmed, Adesina Oladokun, Nasir Adam Ibrahim, Shahd Nourain Adam]

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2.6 Author contributions [AAA, MA, AO, NAI and SNA analyzed and interpreted the data, and drafted the manuscript. AAA and AO designed the study and directed implementation and data collection. AAA, MA, AO, NAI and SNA edited the manuscript for intellectual content and provided critical comments on the manuscript. All authors gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agreed to be accountable for all aspects of the work.]

2.7 Supportive foundations [No]

2.8 Conflict-of-interest [The authors declared no potential competing of interest concerning the research, authorship, and/or publication of this article]

2.9 Open-Access [Yes]

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2.11 Abstract [YES]

2.12 Key words [Leptin; Serum level; Unexplained infertility; Sudanese women]

2.13 Copyright [YES]

2.14 Core tip [YES]

2.15 Audio core tip [YES]

3 SECOND SECTION OF WRITING REQUIREMENTS YES or NO

3.1 Main text [YES]

3.2 Biostatistics [YES]

3.3 Units [YES]

3.4 Illustrations [YES]

3.5 Tables [YES]

3.6 Notes in illustrations and tables [YES]