

## Answering Reviewers

Manuscript: MELATONIN PREVENTS OXIDATIVE STRESS, INFLAMMATORY ACTIVITY AND DNA DAMAGE IN CIRRHOTIC RATS

The authors thank the reviewers for their valuable contribution with their questions and suggestions.

Corrections were made in the manuscript and below are directly answered in the questions asked.

### Reviewer #1:

The authors described “Melatonin prevents oxidative stress, inflammatory activity and DNA damage in cirrhotic rats”. It is a worthy effort to provide explore the effect of melatonin on rats with BDL-induced secondary biliary cirrhosis. However these are the observations made which needs to be addressed.

1 Title. Does the title reflect the main subject/hypothesis of the manuscript? YES

2 Abstract. Does the abstract summarize and reflect the work described in the manuscript? The abstract must be supplemented with numerical values for the tests performed.

Values entered in results in the summary

3 Key words. Do the key words reflect the focus of the manuscript? Partly

Keywords have been improved.

4 Background. Does the manuscript adequately describe the background, present status and significance of the study? Partly (The research gap has not been highlighted in the manuscript)

The introduction has been enriched with more information.

5 Methods. Does the manuscript describe methods (e.g., experiments, data analysis, surveys, and clinical trials, etc.) in adequate detail? YES

6 Results. Are the research objectives achieved by the experiments used in this study? YES What are the contributions that the study has made for research progress in this field? a. Melatonin possesses anti-inflammatory properties as demonstrated by lower IL-1 $\beta$  levels and reduced NF $\kappa$ B expression (The same has already been well established by different researchers as highlighted in the review PMID: 29104591). b. Melatonin prevented cytogenetic damage, as well as strand breakage and DNA base oxidation.

7 Discussion. Does the manuscript interpret the findings adequately and appropriately, highlighting the key points concisely, clearly and logically? Are the findings and their applicability/relevance to the literature stated in a clear and definite manner? Is the discussion accurate and does it discuss the paper's scientific significance and/or relevance to clinical practice sufficiently? The authors must make an attempt to provide the limitations and future prospects of this study and the conclusion section could have been better.

The discussion section has been enriched with more information regarding clinical applicability, and the conclusion has been improved.

8 Illustrations and tables. Are the figures, diagrams and tables sufficient, good quality and appropriately illustrative of the paper contents? YES Do figures require labeling with arrows, asterisks etc., better legends? No

9 Biostatistics. Does the manuscript meet the requirements of biostatistics? YES

10 Units. Does the manuscript meet the requirements of use of SI units? YES

11 References. Does the manuscript cite appropriately the latest, important and authoritative references in the introduction and discussion sections? Does the author self-cite, omit, incorrectly cite and/or over-cite references? Total citations: 47; Self-citations: 5, citations within last 3 years (2019-2021): 08

The increasing number due to the enrichment of the introduction and discussion.

12 Quality of manuscript organization and presentation. Is the manuscript well, concisely and coherently organized and presented? Is the style, language and grammar accurate and appropriate? YES

13 Research methods and reporting. Authors should have prepared their manuscripts according to manuscript type and the appropriate categories, as follows: (1) CARE Checklist (2013) - Case report; (2) CONSORT 2010 Statement - Clinical Trials study, Prospective study, Randomized Controlled trial, Randomized Clinical trial; (3) PRISMA 2009 Checklist - Evidence-Based Medicine, Systematic review, Meta-Analysis; (4) STROBE Statement - Case Control study, Observational study, Retrospective Cohort study; and (5) The ARRIVE Guidelines - Basic study. Did the author prepare the manuscript according to the appropriate research methods and reporting? YES

14 Ethics statements. For all manuscripts involving human studies and/or animal experiments, author(s) must submit the related formal ethics documents that were reviewed and approved by their local ethical review committee. Did the manuscript meet the requirements of ethics? YES

## **Reviewer #2:**

- please provide the list of abbreviations

Provided and attached as "additional material"

– please provide the number of ethical approval

Inserted in the text in the item "Institutional review board statement - Institutional Animal Care and Use Committee" and in "Material and Methods"

- introduction and discussion section need improvement;

Improved section with inclusion of information and new citations.

- please provide information on how your results will translate into clinical practice

Informed and discussed.

- in discussion section please provide study strong points and study limitation section

Provided

- please correct typos:

Revised and corrected