

# Review of: "Hepatoprotective Effect of the Ursolic Acid-Oleanolic Acid Mixture Administered Intragastrically in Mice with Liver Damage Induced by Anti-TB Drugs"

Ameneh Omid<sup>1</sup>

<sup>1</sup> Tarbiat Modares University

Potential competing interests: No potential competing interests to declare.

Writing to the Editor of **Qeios** about **Qeios ID: F39NIP**.

In this work, the researchers have attempted to investigate the synergistic effects of two compounds, ursolic acid and oleanolic acid, on hepatotoxicity induced by three antituberculosis drugs.

Arellanes et al. found that these compounds exerted hepatoprotective effects in co-administration with antituberculosis drugs and alleviated hepatotoxicity. However, several concerns emerge from their study as follows:

## Comments:

- In this study, ursolic acid and oleanolic acid were applied for 60 days when the animals received antituberculosis drugs simultaneously. Therefore, it is unclear whether the effects of these compounds are ameliorative or preventive. Please consider this important issue in the entire manuscript.
- In the introduction part, the epidemiology of TB and other infectious diseases has been discussed in detail; it is better to rewrite the introduction in such a way that these topics are briefer.
- The authors have mentioned that the liver, kidney, and spleen were removed for further evaluations, while in the results section, except for the weight of these tissues and the mention of splenomegaly, which are gross findings, no other evaluations were raised and nothing was done regarding the spleen and kidney. At least, the histology of these organs should be presented, and their results should be discussed.
- Grouping should be clearly rewritten. In addition, groups must be displayed in order, e.g., in Figure 1.
- Showing the statistical difference through the entire results should be uniform. Besides, it should be mentioned that the statistical difference was between which groups?

For example, in Figure 1, it is not indicated that the letter "a" represents statistical differences between which groups of the study. In addition, in Table 2, both letters and special symbols like stars are used.

- Scale bar or magnification must be included in Figure 2. In addition, it's better that the image of group V would be replaced with a more suitable one that is more consistent with other images in terms of location.
- Kindly apply the standard term in writing (i.e., BALB/c) regarding the strain of mice.
- It is suggested that Table 3 be rewritten, and the column related to the findings of other organs be presented separately

from the findings related to the liver tissue.

- References are provided in two formats: numerical and other references. Is this a common referencing system?