Reviewer's report

Title: The synergistic hepatoprotective potential of Beta vulgaris juice and 2,3-dimercapto-succinic acid in lead-intoxicated rats via improving the hepatic oxidative and inflammatory stress

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Title: The synergistic hepatoprotective potential of Beta vulgaris juice and 2,3-dimercapto-succinic acid in lead-intoxicated rats via improving the hepatic oxidative and inflammatory stress

Purpose: To evaluate the hepatoprotective role of the lyophilized Beta vulgaris juice (BVJ) against Pb-induced hepatotoxicity in rats. Also, to examine the possible synergistic hepatoprotective impact of the combination between BVJ and 2,3-dimercaptosuccinic acid (DMSA, the currently approved drug for Pb-toxicity).

Overall comments: Authors will need to revise carefully the entire document for typo and grammar issues. Cut-off values for defining biological activity are missing.

Review:

Page 8, line 24, Abstract — Dose is relatively large. Beta vulgaris is a source of table sugar, which could cause as a side effect hyperglycemia and may not be the most appropriate choice for diabetic patients.
Page 8, line 58, Abstract — Review for proper and clear grammar.
Page 10, line 42, Background — Run-on sentence. Check for proper grammar.
Page 20, line 24, Results — Run-on sentence. Check for proper grammar.
Page 22, line 58, Results — Check for proper grammar.
Page 24, lines 14-16, Results — Check for proper grammar. The verb "was" has been overused in the entire manuscript, even when another verb may fit better in a clause.
Page 29, lines 30-49, Conclusion — Conclusion poorly written/developed. For instance, "harmful effects on the liver" are due to BVJ or DMSA? Please revise for clear understanding.
Page 42, Table 1 — Use the same unit for all (either mg or microgram).
Page 43, Table 2 — Concentration used for some of the experiments seems very high. High doses of the natural extract/product could correlate with potential side effects.
Page 47, Figures — Check quality of figures.

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**Are the conclusions drawn adequately supported by the data shown?**
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No

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