Reviewer's report

Title: Arsenic-induced dyslipidemia in male albino rats: comparison between trivalent and pentavalent inorganic arsenic in drinking water

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Reviewer: selvaraj miltonprabu

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Accept without revision

Arsenic-induced dyslipidemia in male albino rats: comparison between trivalent and pentavalent inorganic arsenic in drinking water’ submitted by ADEMUYIWA et al specifically describes the mechanism arsenic induced dyslipidemia in rats. Both the arsenic species were behaved differently in exerting in their lipotoxic effects. The manuscript, particularly demonstrates that the inhibition of reverse cholesterol transport and increase in plasma FFA were the two denominators (in addition to other individual perturbations of lipid metabolism induced by each arsenical), might mediate the observed cardiovascular and other disease endpoints of inorganic arsenic exposure through drinking water. However, authors have studied many of the key parameters in various organs to prove their hypothesis and they have succeeded by large extend. Based on their findings, drinking water arsenic treatment could significantly modulate the lipid status in various tissues through their prooxidant property.

The work is somehow novel, experiments were well conducted according to the need of the objective. The results were well correlated with appropriate statistical tools. The topic fits well with the scope of the journal. Many parameters in blood and tissues have been investigated to prove lipotoxic nature of arsenic in rats. Their findings were well supported with serum, tissue biochemical analysis. The overall findings of the paper have attracted much novelty, with specific biochemical supportive proof.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests