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Journal Name:	Asian Journal of Research in Biochemistry
Manuscript Number:	Ms_AJRB_50942
Title of the Manuscript:	Effect of Oral intake of Sodium Benzoate on Serum Cholesterol and Proinflammatory cytokine (Tumor necrosis factor al in the heart tissue of Wistar rats
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that <u>NO</u> manuscript should be rejected only on the basis of '<u>lack of Novelty'</u>, provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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alpha [TNF-α] and Interleukin-6 [IL-6]) levels

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, and highlight that part in the manuscript. It is should write his/her feedback here)
Compulsory REVISION comments	The authors have done the experimental analysis of sodium benzoate in the Wistar rats, but certain clarifications are requested as follows	
	1. The authors described the effects of oral sodium benzoate in concentrations of 150, 250 and 500 mg/kg body weight to reduce cholesterol as in Figure 1 and proinflammatory cytokines as in Figure 2. The effects of reduction in proinflammatory markers are more marked in Figure 2 compared to Figure 1.	
	Question? Is there any side effects observed in this study?	
	2. In lines 34-36, it is stated as sodium benzoate is used in the treatment of hepatic metabolic defects associated with hyperammonemia in urea cycle disorder.	
	Suggestion	
	The authors are requested to put some insights on hepatic and renal parameters assessment also both in Wistar rats and human beings, especially in diseased states to find out its effects	
	3. In lines 36-38, it is stated as 2% solution of sodium benzoate in drinking water is safe for lifelong treatment in mice without any noticeable side effects	
	Question? Whether such concentration is applicable to humans and find out the safe concentration to implement it in the water supply of human population and its beneficial effects- assessment requested.	
	4.In lines 44-47, the upper limits of sodium benzoate allowable in food varies 0.1% in United States with a range 0.15 to 0.25% and in European countries, it is 0.015 to 0.5%. The authors are requested to assess whether the sodium benzoate in this range reduce the cholesterol and proinflammatory cytokines in human beings as a trial to implement its usage in therapeutic levels in addition to their efforts done on Wistar rats.	
	5. Lines 165-211—good. The authors narrated the biochemistry mechanism of action of sodium benzoate in an appreciable manner.	
	6. In lines 200-202, it is stated as inflammation was shown to be a prominent hallmark of ventricular hypertrophy. In lines 215-218, it is stated as sodium benzoate has a novel anti-inflammatory role.	
	Suggestion	
	Assessment of reduction in ventricular hypertrophy is requested during sodium benzoate administration, especially by Echocardiography assessment of pathological	

er, correct the manuscript t is mandatory that authors

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	hypertrophy and failing heart with a measurement of proinflammatory markers to	
	correlate with its reduction of hypertrophy and control of failure symptoms in humans by	
	administering sodium benzoate in therapeutic concentration.	
	It is very much interested to review this paper further, if the authors do some efforts	
	for the application of sodium benzoate to the human beings in addition to Wistar rats to	
	implement it in the therapeutic range in pathological conditions such as ventricular	
	hypertrophy and failure, hepatic and renal disorders in addition to hypercholesterolemia.	
Minor REVISION comments		
Optional/General comments		

<u>PART 2:</u>

	Reviewer's comment	Author's comment (if agr highlight that part in th should write his/her feed
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	

Reviewer Details:

Name:	Ramachandran Muthiah
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greed with reviewer, correct the manuscript and the manuscript. It is mandatory that authors adback here)