

Review Form 1.7

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	Ms_IJBCRR_107769
Title of the Manuscript:	OSMOREGULATORY AND HAEMATOPOIETIC EFFECT OF AQUEOUS EXTRACTS OF Terminalia catappa LEAF FOLLOWING PHENYL HYDRAZINE INDUCED HAEMOLYTIC ANAEMIA IN WISTAR RATS
Type of the Article	

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</p>	<p>Yes, the manuscript is relevant and would be useful for the scientific community</p> <p>Remove the word "Osmoregulatory" from the title since there is no direct evidence to prove this aspect in the entire paper</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>No</p>	
<p>Optional/General comments</p>	<ul style="list-style-type: none"> • Observation of Terminalia catappa for alleviating anemia is not new. There are already reports on similar lines (Umoren et al., 2023). Also, its use in treating sickle cell anemia and erythropoiesis is reported (Mgbemene and Ohiri, 1999; Aimola et al., 2013). These references are not even cited in the manuscript. • The submitted manuscript states that the extract produced no significant difference on MCV, MCH and MCHC when compared with the normal, standard and anemic control. What is the reason for such an observation and what is the implication of such a finding? • This paper looks more like an observation paper with no reasoning in the observations reported. • Isolation of functional/bioactive compounds from Terminalia catappa, that can play an important role in alleviating anemia, would add weightage to this paper and is worth exploring. • 100mg/kg and 200mg/kg extract shows almost identical efficacy, which necessitates the study to be repeated with 50mg/kg and 400mg/kg to ensure this is indeed an effect that is dose dependent. • Highest anti-sickling activity of the Terminalai catappa extract lies its triterpenoids components (Samuel et al., 2009). Hence, it would worth repeating the same study with the triperpenoid components of this plant for alleviating Phenylhydrazine induced anemia in animals. • Hexadecanoic acid methyl ester, 9,11-octadecadienoic acid, methyl ester, (E, E)-, trans-13-octadecenoic acid methyl ester, and methyl stearate are some of the compounds identified in the ethyl acetate extract of Terminalia catappa leaves and presence of such components in the extract used in this paper is essential especially because the extraction solvent employed by the current authors is different (Chikezie et al., 2020). <p>References:</p>	

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	<ol style="list-style-type: none"> 1. Umoren E, Asiwe JN, Okon IA, Levi Amangieka A, Nyenke CU, Nnamudi AC, Modo EU, Basseyy AIL, Nwikue G, Etim OE. <i>Terminalia catappa</i> attenuates phenylhydrazine-induced anaemia and hepato-renal toxicity in male Wistar rat by boosting blood cells, modulation of lipoproteins and up-regulation of <i>in vivo</i> antioxidant armouries. <i>Biomarkers</i>. 2023 May;28(3):302-312. doi: 10.1080/1354750X.2023.2166588. 2. Mgbemene CN, Ohiri FC. (1999) Anti-sickling Potential of Terminalia catappa Leaf Extract, <i>Pharmaceutical Biology</i>, 37:2, 152-154, DOI: 10.1076/phbi.37.2.152.6090 3. Aimola IA, Inuwa HM, Nok AJ, Mamman AI, Habila N, Muhammad A, Agbaji AS, Igoche A, Ogungbemi Tighil K, Usman Y. Erythropoietic and Bone Marrow Stimulating Activity of Terminalia catappa Extract: Possible Role of Nitric Oxide Signaling. <i>International Blood Research & Reviews</i>. 1(1): 1-13, 2013. 4. Samuel BB, Olaniyi AA, Olakunle ID, Dambrosio M, Okogun JI. Phytochemical and Anti-sickling Activities of Terminalia catappa Linn. <i>Journal of Phytomedicine and Therapeutics</i>, 14 (2009) DOI: 10.4314/jopat.v14i1.69407. 5. Chikezie PC, Ekeanyanwu RC, Chile-Agada AB. Phytocomponents from <i>Anacardium occidentale</i>, <i>Psidium guajava</i>, and <i>Terminalia catappa</i> altered membrane osmotic stability of sickle erythrocytes. <i>Beni-Suef Univ J Basic Appl Sci</i> 9, 9 (2020). https://doi.org/10.1186/s43088-019-0030-z 	
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PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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