



SDI Review Form 1.6

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	Ms_IJBCRR_24341
Title of the Manuscript:	Effect of Ethanolic Leaf Extracts of Vernonia amygdalina and Gongronema latifolium on Serum Catalase Activity in Plasmodium Berghei-Infected Mice
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', 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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comments (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)
Compulsory REVISION comments	Section 2.2.1 One of the main issues in natural products is the standardization of the extracts to ensure that always you are getting the same compounds. Have the authors standardized the extracts? Is there any proof that they are getting the same percent of compounds in the extract? They need to get a NMR or IR spectra or HPLC chromatogram at least, in order to know what kinds of family compounds are present in the extract. Section 4. Discussion Authors mention that "The presence of flavonoid in VA and GL has indicated the significant reduction in catalase activity. The presence of other phytochemicals in VA and GL like tannin and alkaloids may also have contributed to the reduction in catalase activity of infected mice". However, they didn't demonstrate the presence of these compounds, even when is very easy to do. If authors believe that antioxidant compounds are present in the extract and they are responsible for the biological activity, they can show their presence with one simple assay, such as TLC using DPPH (2,2-diphenyl-1-picrylhydrazyl) as development agent. Same thing for alkaloids (Dragendorff reagent). Everything in this part is being hypothesized, the presence of flavonoids, alkaloids and other important compounds with biological activity (This reduction may be due to the presence of antioxidants in the leaves as indicated by many studies. Is being hypothesized the action of these compounds in the reduction of catalase activity (It may also be hypothesized that the catalase reduction observed in mice group that received VA and GL intervention may be as a result of quenching effects of ...). And so on. How could the authors draw a conclusion when they are not sure about their research? There are a very easy assay to get enough	Phytochemical analyses of the extracts were carried out to find out presence of compounds in the extracts. The results were consistent with previous studies on literatures. The extracts were not standardized by NMR/IR spectra/HPLC as this was not part of the research objectives. However, we have taken note of this sound comment of yours for future researches on these plants and other natural products we may consider. We have beefed up our discussion in this section to reflect your comments and other possible reasons for our result. We have carefully looked at the sentences in this part and have indeed seen strong reasons with you on the need to be firm on our



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	data to corroborate their observation, for example total phenolic assay, DPPH assay, even the methods mentioned before in TLC. Authors mention that “Vernonia amygdalina contains significant amount of flavonoid such as luteolin which may account for its increased antioxidant activity [22]”. First at all, I could’nt find the cite 22, Journal of Internal Medicine, 2008; 5:1550-1560, there is not paper in this journal, please check your reference. Second, instead of “Luteolin”, do you mean “Luteolin”? Third, If this is part of the “Discussion”, authors need to probe the presence of luteolin, otherwise, this paragraph need to be consider in the “Introduction” section.	discussion following results from our in vitro antioxidant studies. These have been taken care of in the manuscript. The cite [22] has been checked and corrected and properly cited to [27]. Others include: Torel J, Cillard J, Cillard P (1986). Antioxidant activity of flavonoids and reactivity with peroxy radical. <i>Phytochem.</i>, 25: 383-385. Igile, G. O., Oleszek, W., Jurzysta, M., Burda, S., Fanfunso, M., & Fasanmade, A. A. (1994). Flavonoids from <i>Vernonia amygdalina</i> and their antioxidant activities. <i>J. Agric. Food Chem.</i>, 42: 2445-2448. Udensi EA, Ijeh II, Ogbonna U (2002). Effect of traditional processing on the phytochemical and nutrient composition of some local Nigerian leafy vegetables. <i>J. Sci. Tech.</i>, 8: 37-40. Ifeoma I. Ijeh and Chukwunonso E. C. C. Ejike. (2011). Current perspectives on the medicinal potentials of <i>Vernonia amygdalina</i> Del. <i>Journal of Medicinal Plants Research</i> Vol. 5(7), pp. 1051-1061
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<u>Minor</u> REVISION comments	Check the next in the whole manuscript: All the Scientific names in the paper need to be written in cursive font (instead of Plasmodium vivax should be <i>Plasmodium vivax</i>) Chemical formulas need to be written in the right way (Instead of H2O2, should be H₂O₂) Units need to be written separately of the number (Instead of 1.40Kg, should be 1.40 Kg), except the % unit. Use abbreviation instead of the unit name (Instead of 2.25 litres, should be 2.25 L)	This comment was noted and has been corrected in the manuscript. This comment was noted and has also been corrected in the manuscript. We also noted and effected this correction This has also been taken care of in the manuscript. Thank You.
<u>Optional/General</u> comments	<i>Vernonia amygdalina</i> and <i>Gongronema latifolium</i> have been studied for their anti-malarial activity, some studies include: Anoka A. Njan (2012). Herbal Medicine in the Treatment of Malaria: <i>Vernonia amygdalina</i>: An Overview of Evidence and Pharmacology, Toxicity and Drug Testing, Prof. Bill Acree (Ed.), ISBN: 978-953-51-0004-1, InTech, Available from: http://www.intechopen.com/books/toxicity-and-drug-testing/herbal-medicine-in-thetreatment-of-malaria-vernonia-amygdalina-an-overview-of-evidence-and-pharmaco Oyedeki K.O., Bolarinwa A.F., Akintola A.M. Effect Of Methanolic Extract of <i>Vernonia Amygdalina</i> on Haematological and Plasma Biochemical Parameters in Male Albino Rats. IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), Volume 3, Issue 5, 64-67 Akinnuga AM, Bamidele O., Ekechi P. and Adeniyi OS. Effects of an Ethanolic Leaf Extract of <i>Gongronema latifolium</i> on Haematological Some Parameters in Rats Afr. J. Biomed. Res. 14, 2011, 153 -156 However, they are not mentioned in the manuscript.	Couldn't find this book. Tried online via the address you wrote down here, still could not access it. This was noted and mentioned in the manuscript This was also noted and mentioned in the manuscript Thank You.