

## Review Form 1.6

Journal Name:	<a href="#">Journal of Pharmaceutical Research International</a>
Manuscript Number:	Ms_JPRI_87714
Title of the Manuscript:	ANTI-ANAEMIC AND ANTI-LEUKOPENIC EFFECTS OF HYDROMETHANOLIC EXTRACTS OF TIGER NUT AND GINGER ON ALLOXAN - INDUCED DIABETIC RATS.
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:

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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><b>Compulsory</b> REVISION comments</p>	<p>A reference 16. Folch J, Lees M, Sloane Stanley GH. A simple method for the isolation and purification of total lipids from animal tissues. J Biol Chem. 1957;226(1):497-509., does not mention how to obtain extracted liquid from the grounded air-dried <i>Cyperus esculentus</i> and <i>Zingiber officinale</i> using the Soxhlet extractor as described by [16].</p> <p>In item 2.4 Preparation of Extracts, there was no analysis of the extract composition regarding the amounts of each component.</p> <p>In item 2.5 Animals, it would be interesting to detail the species of rats with the scientific name and the diet of the animals, because after treatment with alloxan, it is important.</p> <p>In subitem 2.5.1 Alloxan-induced diabetic animal model, mean blood glucose and standard deviation were not mentioned after treatment with alloxan for 4 days.</p> <p>In item 2.8 Experimental Design, why was Group 5 only treated for 7 days, while the others were treated for 14 days? There is no indication of how many days Group 6 was treated.</p> <p>In item 2.9 Evaluation of Haematological Parameters, the detailed description of the evaluation methods was missing, which is better described in the cited reference: Odo R, Mgbegbu EC, Anyanwu LN. Effect of aqueous ginger extract on sperm quality and haematology in lead acetate treated male albino rats. Tropical Journal of Pharmaceutical Research. 2020;19(7):1481-1485.</p> <p>In the results, I suggest putting a table with all the values of the hematological parameters, even the non-significant ones, with their means and standard deviations, in addition to the p values and confidence intervals.</p> <p>In figures 1, 2 and 3, I suggest putting the standard deviation and the p-value (or if there was a significant difference between the groups).</p> <p>In item 4.2. Effects of 500 mg/kg <i>Cyperus esculentus</i> on the haematological parameters of alloxan induced diabetic rat, I suggest putting exact p values and confidence intervals.</p> <p><b>I think there was a mistake in this statement</b> «In this study, the indicator of hypochromic anaemia (MCV) was observed to be lower than the values observed in the normal control group. Although the induction of diabetes mellitus did not significantly alter the mean values of MCH and MCHC, but caused significant (<math>p &lt; 0.05</math>) increases in the mean value (69.06fL) of MCV (Mean Corpuscular Volume) in the diabetic untreated group compared with an average value of 66.90fL (tigernut extract) and 66.96fL (Standard drug) obtained in the treated groups), pois aparentemente não há diferenças nos gráficos.</p> <p><b>Macrocytic cells occur in folic acid or vitamin B12 deficiency or impairment of their metabolism or in Thiamine-responsive megaloblastic anemia syndrome (OMIM No. 249270) which comprises a distinctive triad of clinical features: megaloblastic anemia with ringed sideroblasts, diabetes mellitus, and progressive sensorineural deafness.</b></p> <p><b>The discussion is with the description of the results, and could be enriched by reading the following articles:</b></p> <p>Non-Enzymatic Glycation of Transferrin and Diabetes Mellitus  <a href="#">Yanqi Ma, Jing Cai, Ying Wang, Jingfang Liu, Songbo Fu</a>            Diabetes Metab Syndr Obes. 2021 Jun 8;14:2539-2548.DOI:10.2147/DMSO.S304796</p> <p><a href="#">Increased Levels of Glycated Hemoglobin A1c and Iron Deficiency Anemia: A Review.</a></p>	

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	Guo W, Zhou Q, Jia Y, Xu J. Med Sci Monit. 2019 Nov 7;25:8371-8378. doi: 10.12659/MSM.916719.  <b>Iron deficiency anemia and glucose metabolism.</b> Soliman AT, De Sanctis V, Yassin M, Soliman N. Acta Biomed. 2017 Apr 28;88(1):112-118. doi: 10.23750/abm.v88i1.6049.	
<b>Minor</b> REVISION comments	Tables 1 and 2 could be grouped into a single table.  The discussion does not need to have subtopics.	
<b>Optional/General</b> comments	This work has good potential if the discussion is improved.  Spell check and formatting will be required.	

**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?	<u>(If yes, Kindly please write down the ethical issues here in details)</u>	

**Reviewer Details:**

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