

Review Form 3

Journal Name:	Journal of Pharmaceutical Research International
Manuscript Number:	Ms_JPRI_128857
Title of the Manuscript:	Study of the antioxidant, anti-inflammatory and analgesic properties of extracts of <i>Gomphrena serrata</i> L. (Amaranthaceae), a plant used in traditional medicine for the treatment of gastrointestinal parasitosis in Burkina Faso.
Type of the Article	

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PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	Gomphrena serrata L. (Amaranthaceae) is the local plant, that can be useable the medical in the fields of traditional medicine. This manuscript expressed the knowledge of the active constituents and bioactive efficacy of extracts, which was guided to another plant for usability in the medical.	
Is the title of the article suitable? (If not please suggest an alternative title)	The efficacy of antioxidant, anti-inflammatory and analgesic properties of <i>Gomphrena serrata</i> L. (Amaranthaceae) extracts , a plant used in traditional medicine for the gastrointestinal parasitosis treatment in Burkina Faso.	

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<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>Gomphrena serrata L (Amaranthaceae) is a medicinal plant traditionally used in rural areas for the treatment of many diseases, including gastrointestinal parasitosis. The aim of this work is to determine the antioxidant, anti-inflammatory and analgesic potential of aqueous decoctate decoction (AD), aqueous maceration (AM) and hydroethanol maceration (HEM) of the plant. Methods: HPTLC-TLC was performed to identification extracts was performed according to the method described by Hilderbert et al., 1996. In vitro evaluation of the antioxidant potential of the extracts was carried out by using the method of ABTS, FRAP and LPO tests. In vivo anti-inflammatory activity was evaluated by using the 1% carrageenan anti-edema test. The analgesic test was performed with 0.6% acetic acid. Results: Phytochemical screening revealed the presence of tannins, saponosides, reducing compounds, coumarins and derivatives, anthocyanosides, steroids, triterpenes and flavonoids, respectively. The aqueous decoction showed a lipid peroxidation inhibition rate of $48.30 \pm 3.43\%$, respectively lower than that of hydroethanol macerate ($58.08 \pm 4.65\%$) and aqueous macerate ($60.07 \pm 4.52\%$). In The ABTS free radical scavenging test, hydroethanol macerate had an IC50 ($35.92 \pm 5.04 \mu\text{g/mL}$) lower than aqueous decoctate ($44.75 \pm 1.04 \mu\text{g/mL}$) and aqueous macerate ($46.81 \pm 0.30 \mu\text{g/mL}$), respectively. The aqueous decoction had the best reducing power of $1092.30 \pm 18.50 \text{ Eqaa}(\mu\text{M/mL})$ based on the ferric ion reduction assay (FRAP), respectively. That compared with hydroethanolic maceration $957.99 \pm 15.49 \text{ Eqaa}(\mu\text{M/mL})$ and aqueous maceration $716.13 \pm 48.93 \text{ Eqaa}(\mu\text{M/mL})$. The carrageenan anti-inflammatory test, at a dose of 600 mg/Kg.b.w., gave an edema inhibition rate of 70.57% for the aqueous macerate, 73.07% for the aqueous decoction and 75.56% for the hydroethanol macerate. Finally, the analgesic test at a dose of 600 mg/Kg.b.w. showed a contortion inhibition rate of 53.41% for the aqueous macerate, 60.80% for the aqueous decoctate and 69.32% for the hydroethanol macerate.</p> <p>Conclusion: These results suggest that Gomphrena serrata is a plant with antioxidant, anti-inflammatory and analgesic properties that could alleviate the effects of inflammation during parasitic infections.</p>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>The manuscript scientifically is suitable.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>The author must be addition of the reference in the modern issue, (2024-2020). That increased the academic of journal publication</p>	
<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Good (check the spelling)</p>	
<p>Optional/General comments</p>		

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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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