

Review Form 3

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| Journal Name: | Annual Research & Review in Biology |
| Manuscript Number: | Ms_ARRB_130908 |
| Title of the Manuscript: | Saba senegalensis (A.DC) Pichon (Apocynaceae): Treatment of Loperamide-induced constipation in mice |
| Type of the Article | Original Research Article |

General guidelines for the 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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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Important Policies Regarding Peer Review

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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> |
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| 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. | This manuscript is of significant importance as it provides valued insights into the laxative properties of <i>Saba senegalensis</i> , a plant traditionally used in African medicine. By demonstrating the plant's efficacy in relieving constipation and attractive intestinal transit in mice, the study suggestions a scientific basis for its traditional use, potentially pavement the method for the development of natural, plant-based laxatives with less side effects likened to synthetic alternatives. Furthermore, the identification of key minerals and their potential characters in the plant's mechanism of action contributes to the broader understanding of how medicinal plants can influence gastrointestinal health. This research not only validates traditional knowledge but then encourages further pharmacological studies on other under-researched medicinal plants, stimulating their integration into modern therapeutic practices. | ok |
| Is the title of the article suitable? (If not please suggest an alternative title) | The manuscript titled "Saba senegalensis (A.DC) Pichon (Apocynaceae): Treatment of Loperamide-induced constipation in mice" is a well-structured and scientifically rigorous study that evaluates the laxative properties of Saba senegalensis, a plant traditionally used in African medicine. | ok |
| 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. | The abstract of the article is generally comprehensive, covering the study's aim, methods, results, and conclusion effectively. However, a few improvements could enhance its clarity and completeness. - The dosage regimen for different groups should be briefly summarized to make it easier for the reader to understand the experimental setup. - Mention that activated charcoal transit test was used to assess intestinal motility. | <ul style="list-style-type: none">• The methodology addresses this concern.• Logically, it's better to talk about motility than activated carbon transit. |

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| Is the manuscript scientifically, correct? Please write here. | <p>The research seems to be rigorous and accurate, with specific aims, and is considered and statistically based on results. A well-designed study directing the laxative effects of <i>Saba senegalensis</i> in rats, both non-constipated and loperamide-treated, was well-designed. The use of (P values) results in consistent results.</p> <p>Scientific notes:</p> <p>1-The mechanism of action is usually discussed without in-depth analysis. It would be improved to contain additional information about the chemical components of the plant that may clarify its laxative effect, not just its mineral content.</p> <p>2-In the discussion, the effect is compared to Mareya micrantha, but without enough support with mechanistic data to demonstrate the similarity or alteration between them.</p> <p>3- The abstract states that 150 mg/kg BW had no significant effect but does not mention its impact on stool moisture in constipated mice. This detail should be added.</p> <p>4- The phrase "moistened stools of constipated mice" , instead, specify whether it significantly increased stool water content.</p> <p>5- in result, The comparison with Forlax must be made clearer: Did <i>Saba senegalensis</i> perform equally well, or was its upshot slightly weaker?</p> <p>6- Conclusion Improvement: A final sentence suggesting the need for further pharmacological and clinical studies would add value.</p> | <ul style="list-style-type: none">This study is a follow-up to the first one to be published. The latter deals with Saba's major molecular groups. In ongoing research, we plan to carry out fractionation studies to better target the active molecular group in order to identify a clear mechanismThe summary indicates that the saddles of constipated mice are damp. However, we feel that this expression needs to be qualified, given that this humidity is only 25% relative.Saba has a dual effect, unlike forlax, which is why we're wary of comparing them so clearly. Forlax hydrates the stool better, which probably facilitates its transition, while Saba not only hydrates the stool, but also increases intestinal motility. These different aspects are implicitly indicated in the text.Effectivement nous continuons les recherches sur Saba en vue de clarifier son mécanisme d'action. Toutefois nous n'envisageons pas des études cliniques compte tenues de leur caractères contraignant. Normal que cela soit mentionner dans la conclusion |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | <p>The references are mostly relevant, but a significant portion is older than 10 years. Given the topic's pharmacological and physiological nature, newer references (from the last 5–7 years) would improve the manuscript. Kindly, Include more recent studies on the pharmacology of <i>Saba senegalensis</i> or similar Apocynaceae family plants.</p> <p>Some references (e.g., Burkill 2000) are quite old; if possible, cite more updated reviews on traditional medicinal plants.Consider adding recent reviews on the mechanism of action of laxatives and natural compounds affecting intestinal motility. I have added some links containing research similar to yours that can be used.</p> <ul style="list-style-type: none">- https://pubmed.ncbi.nlm.nih.gov/39434357/- https://pubmed.ncbi.nlm.nih.gov/36235735/- https://link.springer.com/article/10.1007/s10722-024-01982-9 | <ul style="list-style-type: none">We have replaced the Burkill reference, which is indeed old, with a recent reference on the mechanism of action of loperamide. We would have liked to go further in the discussion, but unfortunately biochemical tests that could justify our hypotheses are missing. |
| Is the language/English quality of the article suitable for scholarly communications? | <p>The English language is mostly clear and conveys the scientific message. However:</p> <p>1-Some sentences are too long and should be simplified for clarity.</p> <p>2-There are grammatical errors (e.g., missing articles like "the").</p> <p>3-The scientific phrasing could be improved for better readability. Example:</p> <p>4-Instead of: "<i>Saba senegalensis</i> at 300 mg/Kg BW softened stools and modified their appearance in a dose-dependent manner."</p> <p>4-A better alternative: "A 300 mg/Kg BW dose of <i>Saba senegalensis</i> significantly softened stools and altered their consistency in a dose-dependent manner."</p> <p>5-Some terminology (e.g., "moistened stools") should be replaced with more precise scientific expressions (e.g., "increased stool water content").</p> | As far as possible, we try to vary the structures to avoid boring the reader. |
| Optional/General comments | <p>1-The abstract should better highlight the mechanism of action hypothesis and a clearer comparison with Forlax. 2-The introduction is well-structured, but adding more background on loperamide's mechanism would help contextualize the experiment. 3-The results and discussion should integrate more recent studies on plant-derived laxatives. 4-A graphical summary or schematic figure (e.g., showing the proposed mechanism of action) could increase clarity and reader engagement.</p> | the comparison with Mareya micrantha is a good reference without forgetting that other plants could also play this same role. As for the mechanism of action, we will be able to complete it when we do new tests. |

PART 2:

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| | 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? | (If yes, Kindly please write down the ethical issues here in details) | |