

Review Form 1.7

Journal Name:	South Asian Journal of Research in Microbiology
Manuscript Number:	Ms_SAJRM_115191
Title of the Manuscript:	Evaluation of the Anti-virulent Potentials of Ginger (Zingiber officinale L) and Garlic (Allium sativum) on S. aureus and P. aeruginosa
Type of the Article	Original Research

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)
Compulsory REVISION comments 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u>		
Minor REVISION comments 1. Is language/English quality of the article suitable for scholarly communications?		
Optional/General comments	Decision: Major Revision The author's work (Evaluation of the Anti-virulent Potentials of Ginger (<i>Zingiber officinale</i> L) and Garlic (<i>Allium sativum</i>) on <i>S. aureus</i> and <i>P. aeruginosa</i>) generally represents a good contribution to the field of study. Nevertheless, specific corrections and clarifications must be addressed before the manuscript can be deemed suitable for publication. Certain sections would benefit from additional information to support the author's claims and strengthen the research findings. There are areas where further clarification is needed to enhance the reader's understanding. Below are my comments and questions. Introduction 1. Some points, such as the severity of infections caused by specific pathogens and the definition of anti-virulence therapy, could be further clarified for readers unfamiliar with the topic. 2. Overall, the introduction provides a strong foundation for the study, but minor improvements in clarity and coherence could enhance its effectiveness in conveying the importance and objectives of the research to readers. Method	Thanks for your contribution. This has been addressed.

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	<p>Preparation of Crude Extracts of Ginger and Garlic</p> <ol style="list-style-type: none">1. Could you please provide more details on how the samples were dried? Specifically, were they dried in shaded areas or exposed to sunlight? Further information on the drying process would be helpful to understand the methodology used.2. Could you elaborate on why a 48-hour duration was chosen for allowing the samples to stand during extraction? Are there any potential modifications or optimizations to the extraction method that could improve the yield or potency of the extracts for future research?3. What factors influenced the selection of methanol and ethanol as extracting solvents? Were their potential effects on the extracted compounds considered?4. Can you explain the process of evaporation to dryness in the hot air oven at 45°C in more detail? Methanol evaporates at 64°C and ethanol 78°C.5. Why is a rotary evaporator not used when evaporating the filtrate and instead oven instruments are utilized? Further information is required to fully grasp the rationale behind this choice. <p>Determination of Anti-virulence of Extracts on Isolates (Rewrite)</p> <ol style="list-style-type: none">1. Could you please expand on the method described by Chong <i>et al.</i> (2011, 2018), Husain and Ahmad (2013), and Husain <i>et al.</i> (2017) that was utilized without any significant modifications? Write.2. Positive controls were not observed in any of the anti-virulence activity tests. Further clarification may be needed regarding the absence of positive controls. <p>Inhibition of Haemolysis formation</p> <ol style="list-style-type: none">1. Could you please provide additional details regarding the centrifugation process mentioned in this section? Specifically, what speed and duration were utilized? <p>Write Statistical analysis</p> <ol style="list-style-type: none">1. Please offer additional details regarding the statistical analysis conducted. Clarification on this aspect would be appreciated. <p>Result and discussion</p> <ol style="list-style-type: none">1. Are the results presented in a clear and concise manner, facilitating easy interpretation?2. Is there sufficient detail provided to understand how the percentages of inhibition and	<p>Done.</p> <p>Previous studies have adopted 24 hours and 72 hours including 48 hours. Since this study was not based on the effect of extraction hours or period of extraction, we could not conclude on it but the method adopted have been used in previous study.</p> <p>Methanol and ethanol including aqueous have been used for extraction and it is believed that these solvents are very effective in extracting the bioactive components of the plants, thus, the reason. This has been addressed.</p> <p>We used a method that been adopted in previous study. Using a rotary evaporator is a good choice but in its absence, researchers have adopted other methods to evaporate extract.</p> <p>This has been explained. Visiting the pages or manuscripts of the cited author would aid in clarification but you would agree that if we are to explain every method that has been adopted in research, the manuscript becomes too voluminous and uninterested. I hope you understand. Thus, having studied and understood the methods of the previous study, we modified to suit our research in our environment.</p> <p>We adopted a negative control to compare with the effect of the extract as done in previous study.</p>
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	<p>susceptibility were calculated?</p> <p>3. Rewrite results in a smart way in table, chart and graph, first write results as a form of chart, table and graph.</p> <p>4. How many grams of extract were obtained from ginger and garlic using methanol and ethanol solvents?</p> <p>5. Could you please provide the content or description of Table 1? The symbol (Γ) mentioned doesn't seem to match the descriptions provided.</p> <p>6. Please elaborate on the contents of Table 1 and Table 2, specifically regarding the solvent used for extraction (methanol, ethanol, or both).</p> <p>7. Can you provide detailed comparisons contrasting the conducted analyses ginger, garlic, and acridine orange and standard antibiotic treatments for <i>S. aureus</i> and <i>P. aeruginosa</i> infections?</p> <p>8. What are the clinical implications of the findings in terms of developing novel anti-virulence and antibiotic adjuvant therapies?</p> <p>9. Can you provide sufficient mechanistic insights into how ginger and garlic extracts may interfere with bacterial virulence and antibiotic resistance mechanisms?</p> <p>10. Could you please elaborate on the specific active organic compounds present in ginger and garlic extracts that contribute to their anti-virulence activities? Providing more detailed information on these compounds would enhance our understanding of their effectiveness as anti-virulence agents</p> <p>Conclusion</p> <p>1. Can you provide quantitative data or statistical analysis to support this claim? Were the differences statistically significant?</p> <p>2. Could there be alternative explanations for the observed effects of ginger and garlic extracts on <i>S. aureus</i> and <i>P. aeruginosa</i>? How might factors such as concentration, extraction method, or sample purity influence the outcomes of the study?</p> <p>3. What specific aspects of their anti-virulence mechanisms or curing properties should be explored in future research?</p>	<p>The study didn't look at the molecular mechanism surrounding this but has reported that these spices have the potential to inhibit some of the virulence expressed by these isolates. This was not also considered for this study as the study looked at the effect of the spices as a whole rather than the bioactive components.</p>
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		The molecular mechanisms of the extracts on inhibiting the virulence could be investigated.
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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?	(If yes, Kindly please write down the ethical issues here in details)	