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| Journal Name: | [**Asian Journal of Research in Biochemistry**](https://journalajrb.com/index.php/AJRB) | | |
| Manuscript Number: | **Ms\_AJRB\_137266** | | |
| Title of the Manuscript: | **Clinico-physiological and hemato-biochemical Studies on Dogs Affected by Canine Parvovirus-2 (CPV-2)** | | |
| Type of the Article |  | | |
| **PART 1: Comments** | | | | | |
|  | | | **Reviewer’s comment**  **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here) | |
| **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 provides a valuable contribution to the scientific community by offering detailed clinical, hematological, and biochemical insights into the effects of Canine Parvovirus-2 (CPV-2) variants in naturally infected dogs. While parvovirosis is a well-documented disease in veterinary medicine, studies that contrast the physiological impact of different CPV-2 strains under standardized field conditions are scarce. This research strengthens our understanding of how CPV-2a, CPV-2b, and CPV-2c differentially influence host response, which is particularly relevant in the context of free-ranging and semi-owned dog populations that interact with wildlife and may serve as disease reservoirs. The findings are not only critical for clinical diagnostics and treatment but also have broader ecological implications, especially in regions where domestic dogs act as invasive species and disease vectors at the wildlife–human interface. |  | |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | | | The current title is informative but slightly cumbersome and repetitive. It uses technical jargon redundantly ("clinico-physiological" and "hemato-biochemical") and lacks conciseness. I suggest: “Comparative Pathophysiology of Canine Parvovirus-2 Variants in Naturally Infected Dogs”. |  | |
| **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.** | | | Yes, the abstract is generally informative, covering key elements of the study — including background, objectives, methodology, and major findings. However, there are a few improvements that could be enhanced.  The objectives could be strengthened, for example: This study aimed to assess and compare the  clinico-physiological, haematological, and biochemical alterations associated with different CPV-2 variants (CPV-2a, 2b, and 2c) in naturally infected dogs. And given the broader context of your work, a final sentence linking findings to clinical/ecological importance would add connections with different areas of knowledgement.  Add ecological or diagnostic relevance (optional but valuable) like this: These results contribute to improved clinical diagnosis and highlight the relevance of CPV-2 variant surveillance, especially in regions where domestic dogs act as both companions and potential disease reservoirs. |  | |
| **Is the manuscript scientifically, correct? Please write here.** | | | As a postdoctoral researcher with expertise in the impact of domestic dogs on wildlife, I find the manuscript scientifically sound and methodologically consistent with current standards in veterinary virology. The study employs appropriate diagnostic tools (PCR) and integrates clinical, hematological, and biochemical data in a coherent framework.  That said, the scientific rigor of the manuscript could be improved with a few adjustments. The objectives would benefit from clearer articulation, especially regarding the relevance of comparing CPV-2 variants under natural conditions. Additionally, the apparent overlap in variant detection numbers raises questions about possible co-infections or methodological clarity that should be addressed. Lastly, the statistical analysis would be more robust with the inclusion of specific tests used, effect sizes, and confidence intervals. |  | |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | | | The authors should include more recent articles and studies from other regions, for example: Zhou, P., Zeng, W., Zhang, X., & Li, S. (2017). The genetic evolution of canine parvovirus–A new perspective. PloS one, 12(3), e0175035. Also include references from other fields as well to make the article more multidisciplinary. For example: Haydon, D. T., Laurenson, M. K., & Sillero‐Zubiri, C. (2002). Integrating epidemiology into population viability analysis: managing the risk posed by rabies and canine distemper to the Ethiopian wolf. Conservation Biology, 16(5), 1372-1385. |  | |
| **Is the language/English quality of the article suitable for scholarly communications?** | | | As a non-native English speaker with advanced academic training, I believe the overall language of the article is understandable and conveys the scientific content clearly. However, there are several areas where the grammar, sentence structure, and vocabulary could be improved to meet the standards of scholarly communication. Some phrases are repetitive or overly technical without explanation, and a few sentences lack fluency or proper transitions. I made some changes directly in the manuscript. |  | |

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| **Optional/General** comments | An important ecological application of this study's findings lies in their relevance to wildlife conservation,  particularly in areas where domestic dogs interact with endangered native carnivores. The clinical severity and immunosuppressive effects observed in CPV-2 infections—especially those caused by CPV-2b and CPV-2c variants—highlight the potential for domestic dogs to act not only as disease reservoirs but also as vectors threatening wild populations. This has already been documented in species like the Ethiopian wolf (*Canis simensis*), where parvovirus outbreaks, along with canine distemper, have contributed to dramatic population declines.  It is recommended that the authors integrate this ecological perspective into the discussion, emphasizing the implications of their results beyond veterinary diagnostics. Recognizing the role of domestic dogs in pathogen spillover to wild carnivores underscores the importance of managing free-ranging dog populations and monitoring viral circulation near protected areas. |  |

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| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s Feedback** (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)* |  |

**Reviewer details:**

**Isadora Cristina Motta Lessa, Rio de Janeiro State University (UERJ in Portuguese), Brazil**