



PEER-REVIEW REPORT

Name of journal: *World Journal of Virology*

Manuscript NO: 99070

Title: Role of viruses in periodontitis: An extensive review of herpesviruses, human immunodeficiency virus, coronavirus-19, papillomavirus and hepatitis viruses

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 05382886

Position: Peer Reviewer

Academic degree: MD

Professional title: Academic Research, Chief Doctor, Reader (Associate Professor), Research Scientist

Reviewer’s Country/Territory: China

Author’s Country/Territory: France

Manuscript submission date: 2024-07-12

Reviewer chosen by: Jia-Lin Zhang

Reviewer accepted review: 2024-07-31 04:21

Reviewer performed review: 2024-07-31 04:33

Review time: 1 Hour

Scientific quality	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty



Creativity or innovation of this manuscript	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation
Scientific significance of the conclusion in this manuscript	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input checked="" type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

I have had the opportunity to review the manuscript titled "Role of viruses in periodontitis: an extensive review of herpesviruses, HIV, SARS CoV-2, HPV, and hepatitis viruses". The manuscript provides a comprehensive overview of the potential roles of various viruses in the context of periodontitis, a subject that is both timely and significant given the oral health implications of viral infections. General Evaluation: The manuscript is well-structured, covering a range of viruses and their possible interactions with periodontitis. The authors have made a commendable effort to synthesize a broad array of literature, offering new insights into the complex interplay between viral and bacterial etiologies in periodontal disease. Strengths: Comprehensiveness: The review is indeed extensive, addressing multiple viruses and their potential synergistic effects with bacterial infections in periodontitis. Relevance: The topic is highly relevant, especially in the wake of the COVID-19 pandemic, which has highlighted the importance of



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understanding the oral microbiome. Structure: The manuscript is logically organized, with clear sections dedicated to each virus, facilitating reader comprehension. Areas for Revision: Journal Format Compliance: While the content is robust, the manuscript would benefit from a careful check against the journal's formatting guidelines to ensure adherence, especially regarding references and in-text citations. Clarity and Conciseness: Some sections may require tightening to enhance readability. The authors might consider condensing the information without losing essential details to maintain the reader's interest. Minor Issues: Terminology: Ensure that all scientific terms are up-to-date and consistent throughout the manuscript. Citations: Verify that all cited works are accurately represented and that there is a harmonious blend of classic and contemporary references. Conclusion: The manuscript offers a valuable contribution to the field and would be of interest to a broad readership. After addressing the minor revisions and ensuring compliance with journal formats, I recommend acceptance of this manuscript with the anticipation that it will undergo minor revisions. The intersection of periodontitis research with cutting-edge technologies is a frontier ripe for exploration. Innovations such as genomic sequencing could offer detailed insights into the viral and bacterial interactions within the oral microbiome. Advanced imaging techniques, including high-resolution MRI and PET scans, might enhance our understanding of periodontal inflammation at a cellular level. Nanotechnology could be leveraged to develop targeted drug delivery systems for periodontal treatments, improving the efficacy and reducing the side effects of medications. Furthermore, the integration of artificial intelligence and machine learning algorithms could analyze vast datasets from clinical trials and patient records, identifying patterns and predicting treatment outcomes with unprecedented accuracy. The application of these technologies holds the potential to revolutionize periodontitis management, leading to personalized medicine approaches that are tailored to individual patient needs. Your extensive review on the



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role of viruses in periodontitis is a remarkable contribution to the field, highlighting the intricate relationship between viral infections and oral health. The depth of your analysis and the breadth of viruses examined are truly impressive. As you move forward, I encourage you to further explore the clinical implications of your findings, potentially guiding the development of novel diagnostic and therapeutic approaches for periodontitis. Additionally, your work could serve as a foundation for increased public education on oral hygiene and its critical role in preventing viral and bacterial infections. I anticipate that your research will inspire a new wave of interdisciplinary studies, fostering a greater understanding of periodontal disease and paving the way for more effective treatments.