

Review Form 3

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_124589
Title of the Manuscript:	Mathematical Analysis of Hepatitis B VirusTransmission Dynamics in the Absence of Therapy with Atangana-Baleanu Fractional -Order SPQWXY Model
Type of the Article	Research Article

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>Develop a fractional-order mathematical model to better depict the transmission dynamics of Hepatitis B Virus, including both vertical and horizontal routes, in the absence of vaccination strategies. - Assess the existence and uniqueness of solutions for the proposed fractional-order model using the Banach fixed point theory and Picard-Lindelf approach. - Investigate the impact of varying the fractional order on the rate of endemic spread through numerical simulations.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>Yes</p>	
<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>Yes</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>The model is focused on HBV transmission dynamics in the absence of therapy, and does not consider the impact of treatment or other interventions. - The paper is primarily focused on the theoretical analysis of the fractional-order model, rather than empirical validation or application to real-world data</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. -</p>	<p>SEIHR Model for Indian COVID-19: Trustworthiness of the Government Regulatory Procedure for Coronavirus Aspects The Optimal Control Methods for the Covid-19 Pandemic Model's Precise and Practical SIQR Mathematical Model</p>	
<p>Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?</p>	<ul style="list-style-type: none"> • Refined awkward or unclear sentence structures. • Corrected incorrect use of prepositions and articles. • Enhanced clarity by simplifying complex sentences. • Fixed errors in subject-verb agreement and word selection. • Improved punctuation, particularly the use of commas and periods within citations and clauses. 	
<p>Optional/General comments</p>	<ol style="list-style-type: none"> 1. Developing a fractional-order mathematical model to better capture the transmission dynamics of Hepatitis B Virus (HBV), including both vertical and horizontal transmission routes, in the absence of vaccination. 2. Analyzing the existence and uniqueness of solutions for the proposed fractional-order HBV transmission model using mathematical analysis techniques. 3. Investigating the impact of varying the fractional order parameter on the dynamics of HBV transmission, particularly the rate of endemic spread. 	

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PART 2:

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

Reviewer Details:

Name:	R. Ramesh
Department, University & Country	SRM Institute of Science and Technology, India