Review Form 3

Journal Name:	**Asian Research Journal of Gynaecology and Obstetrics**
Manuscript Number:	**Ms_ARJGO_122371**
Title of the Manuscript:	**Transmission of anti-SARS-CoV-2 antibodies to newborns by vaccination of pregnant women.**
Type of the Article	**Original 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)*
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.		
Is the title of the article suitable? (If not please suggest an alternative title)		
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.		
Are subsections and structure of the manuscript appropriate?		
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.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

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Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**		
Optional/General comments	**This article contributes valuable data on the transfer of anti-SARS-CoV-2 antibodies from vaccinated pregnant women to their newborns. However, the small sample size, lack of long-term follow-up, and limited consideration of various vaccines and external factors suggest the need for further research. Future studies should aim for larger, more diverse cohorts, focus on the longevity of passive immunity, and consider the impact of booster vaccinations to build on the findings of this study.** **Strengths:** 1. **Timely and Relevant Topic**: o The article addresses the timely issue of COVID-19 vaccination during pregnancy, which is a subject of significant public health importance. o The study provides valuable insights into maternal vaccination's potential benefits, specifically regarding the transfer of anti-SARS-CoV-2 antibodies to newborns. 2. **Study Design**: o The use of a cohort design, with a specific focus on vaccinated pregnant women and subsequent antibody levels in newborns, is well-aligned with the research objectives. o Inclusion of gestational age, mode of delivery, and timing of vaccination as variables allows for a multifaceted analysis. 3. **Quantitative Data**: o The results section effectively quantifies antibody titers in newborns, making the findings precise and actionable for future research and clinical guidelines. o Statistical comparisons between different variables (e.g., timing of vaccination, mode of delivery) add depth to the analysis. 4. **Use of Graphics**: o Visual representations (such as graphs) help to clarify the relationships between the timing of vaccination and antibody titers, facilitating easier interpretation of data. 5. **Ethical Considerations**: o Informed consent and ethical approval from the institution strengthen the credibility of the study, ensuring adherence to research ethics. **Weaknesses:** 1. **Small Sample Size**: o **Issue**: The study only includes 24 cases, which limits the generalizability of the results. o **Suggestion**: Increasing the sample size in future studies would improve statistical power and enhance the robustness of the findings.	

	2. **Limited Vaccine Diversity**: o **Issue**: The study predominantly uses the Pfizer-BioNTech BNT162b2 vaccine, with only two cases using ChAdOx1. This skews the results and limits insights into different vaccines' effects. o **Suggestion**: A more balanced distribution of vaccines in future studies would help provide comparative data on their effectiveness. 3. **Lack of Long-Term Follow-Up**: o **Issue**: The article does not address the duration of the passive immunity in newborns, which is crucial to understanding the long-term benefits of maternal vaccination. o **Suggestion**: A follow-up study assessing antibody persistence in newborns at different time points (e.g., 3, 6, 12 months) would offer valuable insights into the duration of protection. 4. **Limited Consideration of External Factors**: o **Issue**: The study does not account for additional variables that might influence antibody transfer, such as maternal health conditions, nutrition, or previous vaccinations. o **Suggestion**: Including broader factors in future research may provide a more comprehensive understanding of maternal antibody transfer mechanisms. 5. **Unclear Methodological Details**: o **Issue**: Some aspects of the methodology, such as the exclusion criteria and the detailed handling of the blood samples, are not fully explained. o **Suggestion**: Providing more detailed information on these procedures would enhance the reproducibility of the study. 6. **Statistical Analysis and Interpretation**: o **Issue**: Although some statistical results are mentioned, not all p-values are clearly connected to specific data points, and there is limited discussion on confidence intervals or effect sizes. o **Suggestion**: Expanding the statistical analysis section with more detailed discussion on effect sizes and confidence intervals would improve clarity. 7. **No Discussion on Booster Shots**: o **Issue**: The study does not address the potential influence of COVID-19 vaccine boosters on antibody transfer. o **Suggestion**: Incorporating data or hypotheses related to booster shots would provide a more complete picture, given their growing use. **Research Gaps and Future Directions:** 1. **Duration of Passive Immunity**: o While the study confirms the presence of antibodies in newborns, it does not explore how long these antibodies remain effective. Future research should focus on the duration of passive immunity and its correlation with newborn health outcomes. 2. **Broader Population Studies**:	

	o A larger, more diverse population that includes women with varying health conditions, different ethnic backgrounds, and a wider range of vaccines should be examined to better understand the vaccine's impact on maternal and neonatal immunity. 3. **Impact of Subsequent Pregnancies**: o It would be interesting to investigate whether women who have been vaccinated in one pregnancy show different immune responses or antibody transfer rates in subsequent pregnancies. 4. **Inclusion of Booster Doses**: o Future studies should investigate the role of booster doses in enhancing maternal antibody levels and their transfer to the fetus. 5. **Neonatal Outcomes**: o Research should also explore if higher antibody levels in newborns correlate with reduced rates of neonatal infections or other health benefits, moving beyond antibody titers as the sole outcome measure.	

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)*	

Reviewer Details:

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