Letter to the Editor

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Response to the letter to the editor regarding “Covid-19 vaccination and pregnancy: a systematic review of maternal and neonatal outcomes”

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To the Editor,

Thank you for your interest in our article on the safety and efficacy of COVID-19 vaccination during pregnancy and for sharing your ideas on the topic. We appreciate your comments and would like to address your concerns regarding the limitations of our study [1, 2].

We agree that our systematic review has some limitations; only observational studies were included, and the enrolled populations and the intervention (vaccination type and number of doses) were not homogeneous. We also acknowledge the potential complicating elements that might have altered how the vaccine behaved, including concurrent medical issues such as diabetes and genetic variation in people’s immune systems.

Regarding the need for a thorough examination for concurrent and prior-asymptomatic COVID-19, it is essential to note that many pregnant women who contract COVID-19 may be asymptomatic or have mild symptoms, which could go undetected without laboratory investigations. Asymptomatic COVID-19 has been associated with adverse maternal and fetal outcomes, including premature rupture of membranes [3]. However, other studies mainly enrolling (93.47 %) asymptomatic pregnant women suggest no differences regarding maternal and neonatal adverse outcomes [4]. As reported in our review, Theiler et al. tried to assess vaccination safety and efficacy in women with a history of SARS Cov-2 infection and women without a history of infection (vaccinated and unvaccinated), and no statistically significant results were found [5].

In addition to screening for COVID-19 infection, excluding cases involving concurrent medical issues that could affect vaccination outcomes during pregnancy is essential. For example, pregnant women with pre-existing medical conditions such as anemia, diabetes, or metabolic syndrome may be at higher risk of adverse pregnancy outcomes. They could experience different responses to vaccination compared to healthy pregnant women. Therefore, it is crucial to consider these factors when evaluating the safety and efficacy of COVID-19 vaccination during pregnancy. Collin et al. reported that pregnant women with pre-existing medical conditions such as hypertension, obesity, and diabetes had higher rates of adverse pregnancy outcomes following COVID-19 infection [6]. Interestingly, Mendoza et al. noted that pregnant women with severe COVID-19 can develop a preeclampsia-like syndrome distinguished from actual preeclampsia regarding biomarkers’ concentrations [7].

Finally, reviewing the genetic history could provide additional insights into the immune response to COVID-19 vaccination. As mentioned in the letter to the editor, different people’s immune systems appear to react to COVID-19 differently depending on inherited genetic variation [8]. Therefore, a review of the genetic history could help to identify any genetic factors that could affect the response to vaccination.

In summary, a thorough evaluation of the outcomes of COVID-19 vaccination during pregnancy should consider the possibility of prior or concurrent COVID-19 infection, exclude...
any cases involving concurrent medical issues, and consider the genetic history. This could help to identify any factors that could affect the safety and efficacy of vaccination during pregnancy and inform future research in this vital area.

We agree that additional clinical research is needed to support these findings, and we hope our study will encourage further investigation into this important topic.

Thank you again for your interest in our study.

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References


