

Covid-19 vaccines in pregnancy:weigh the pros and cons

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Dear editor,

A recent article published in New England Journal of Medicine entitled “Preliminary Findings of mRNA Covid-19 Vaccine Safety in Pregnant Persons” (DOI: 10.1056/NEJMoa2104983), which has aroused heated discussion. The study includes 35,691 v-safe participants aged from 16 to 54, who identified as pregnant and the first 3958 participants who enrolled in the v-safe pregnancy registry (54% received the Pfizer–BioNTech vaccine and 46% received the Moderna vaccine). This study provided preliminary data on the safety of mRNA vaccines in pregnancy, and found no obvious side effects among pregnant persons who received mRNA Covid-19 vaccines. We would like to congratulate the authors for providing the important information, a leap for mankind to have promoted the use of Covid-19 vaccines in pregnancy. However, we would like to address some point that merit further attention.

Covid-19 characters as strong infectivity, rapid and wide-spread, with millions of people losing lives. Pregnant women suffered from Covid-19 mean worse pregnancy outcomes, including miscarriage, intrauterine growth restriction, and preterm birth. What was worse, more depression and anxiety symptoms were also reported in the infected pregnant women than that before the pandemic. In the 1902 paper, as Ballantyne said, for the premature delivery, the ideal plan of procedure is prevention, we think the same principle should be applied to Covid-19 prevention. Vaccines have been considered as the promising way to effectively control the virus, however, the effectiveness and safety of vaccines in pregnant women have been reported very limited. More longitudinal follow-up, including follow-up of large numbers of women vaccinated earlier in pregnancy, is necessary to inform maternal, pregnancy, and infant outcomes.

In obstetrics, that the intrauterine environment can affect the long-term health of the offspring has been widely accepted. COVID-19 has been reported as a vascular disease with perivascular damage, and histologic analysis of pulmonary vessels in patients with Covid-19 showed widespread thrombosis with microangiopathy. Pregnancy is the window for the future. We should not only focus on short-term risks, but ignore long-term adventures, such as the potential metabolic adventures of the neonates when they grow up. The ongoing clinical trials around the world should collect data on the safety of Covid-19 vaccines in different periods of gestation, and focus attention on persistent follow-ups of long-term outcomes of the neonates.

There's nothing wrong with a brave step into the great unknown, while the doctors should weigh the pros and cons. Although persons at the highest risk for coronavirus disease 2019 (Covid-19)-related illness and death were prioritized for vaccination, we should also take a prudent attitude along with the updated safety information in this process.

Contributions

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Ethics approval

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