

COVID-19 vaccination during pregnancy: no increase in placental lesions

COVID-19 (SARS-CoV-2) vaccination during pregnancy is not associated with placental histopathological lesions, according to findings of a US study published as a research letter in *Obstetrics & Gynecology*.

COVID-19 infection in pregnant women is associated with various placental disorders including decidual arteriopathy, fetal thrombotic vasculopathy (fetal vascular malperfusion) and chronic histiocytic intervillitis. Researchers used data from an ongoing COVID-19 cohort study to evaluate the incidence of placental lesions after COVID-19 vaccination in 84 pregnant women whose infants were delivered between April 2020 and April 2021, compared with the incidence in 116 unvaccinated pregnant women.

The rate of vaginal delivery was higher in vaccinated than in unvaccinated women (79 vs 65%; $p=0.04$).

Placental examinations showed no significant increase in the incidence of placental lesions including decidual arteriopathy, fetal vascular malperfusion, low-grade chronic villitis or chronic histiocytic intervillitis after maternal COVID-19 vaccination versus no vaccination. Moreover, there was a significantly lower incidence of high-grade chronic villitis in vaccinated pregnant women than in unvaccinated women (5% vs 14%; $p=0.04$).

"In our cohort of vaccinated pregnant patients, there was no observed increase in the incidence of findings characteristic of SARS-CoV-2 infection in pregnancy and no evidence of vaccine-triggered breakdown in maternal immunologic tolerance of the fetus . . . these findings add to the growing literature supporting the safety of SARS-CoV-2 vaccination in pregnancy" said the authors.

Shanes ED, et al. Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Vaccination in Pregnancy. Measures of Immunity and Placental Histopathology. *Obstetrics and Gynecology* : 11 May 2021. Available from: URL: <http://dx.doi.org/10.1097/AOG.0000000000004457>

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