SARS-CoV-2 during pregnancy not associated with complications in neonates

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In a new study published in the esteemed journal *JAMA* researchers at Karolinska Institutet and Karolinska University Hospital have examined the association between a positive SARS-CoV-2 test during pregnancy and complications in mothers and their newborn babies. Almost two out of three pregnant women who tested positive for SARS-CoV-2 were asymptomatic and the researchers found no higher prevalence of complications during delivery or of ill-health in the neonates. However, preeclampsia was more common in infected women.

On 25 March, Karolinska University Hospital in Sweden launched a screening program (PCR test) for the new coronavirus for all women admitted for delivery. The researchers behind the present study have collected these data and linked them to data from the Swedish Pregnancy Register for all 2,682 women who gave birth at the hospital between March 25 and July 24, 2020.

In order to investigate the association between test positivity and medical outcomes in both mother and neonate, the researchers compared test-positive women with test-negative women, matching the two groups for age, BMI, parity, educational level, country of birth, smoking status, co-habitation and pre-pregnancy health status.

A total of 156 women (5.8 per cent) tested positive for SARS-CoV-2. Out of these women, 65 per cent were asymptomatic. That the majority of test-positive pregnant women were asymptomatic is in line with other research results where screening has been used. There was no statistically significant difference in terms of mode of delivery, hemorrhage, use of epidural, preterm birth, length of hospital stay or breastfeeding between infected and not infected women. Nor was there any difference between the groups regarding the infants' Apgar scores or birth weight.

Women who tested positive for the new coronavirus had, for reasons that remain unclear, a lower prevalence of induced labor (18.7 per cent, as opposed to 29.6 per cent in the test-negative women) and a higher prevalence of preeclampsia (7.7 per cent versus 4.3 per cent).

"One possible reason for the latter is that both preeclampsia and COVID-19 impact several organs and can present similar symptoms," says the study's lead author Mia Ahlberg, midwife at Theme Women's Health, Pregnancy and Childbirth, Karolinska University Hospital, and researcher at the Department of Medicine, Karolinska Institutet (Solna).

The fact that the majority of the test-positive women were asymptomatic likely affect the results of the study, Dr. Ahlberg explains.

"The proportion of women with symptoms was too small to be able to investigate if these women have a higher risk of complications," she says. "There are several reports of pregnant women who develop severe COVID-19 with adverse outcomes. Larger studies should be conducted to be able to identify if women with symptoms and different
degrees of symptoms constitute a risk group for adverse outcomes such as preterm birth."

The study also showed that the prevalence of SARS-CoV-2 was higher in women with lower education (14.2 per cent with


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