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SYNOPSIS

02/13/2020

Review of "Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records"

Article citation: Chen H, Guo J, Wang C, Luo F, Yu X, Zhang W, et al. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. Lancet. 2020 Feb 12 [Epub ahead of print]. Available from: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30360-3/fulltext

One-minute summary

- This study retrospectively examined the clinical characteristics and vertical transmission potential of **9 pregnant women** with laboratory-confirmed COVID-19 pneumonia, with specimens (amniotic fluid, cord blood, breast milk and neonatal nasopharyngeal swab) collected at 6 of 9 of the births.
- Clinical characteristics were similar to those reported in non-pregnant adults. The **most common symptoms were fever (7/9), cough (4/9), and myalgia (3/9).** Only 1 patient had shortness of breath. One patient experienced gastrointestinal symptoms.
- 4 patients had pregnancy complications after onset of illness (fetal distress and premature rupture of membranes) but it is unclear if this was related to COVID-19.
- **No viral RNA was detected in amniotic fluid, cord blood, or neonatal throat swabs** sampled at delivery **or in breast milk**, using two PCR assays.
- **All neonates appeared healthy** (APGAR scores of 8-10) at the time of delivery.
- **No evidence to support adverse birth outcomes**, intrauterine infection, or vertical transmission of COVID-19.

Additional information

- Patients were admitted over the period of January 20-31, 2020 and were in the third trimester.
- None developed severe pneumonia or died.
- All neonates were delivered by C-section.
- The time between symptom onset and delivery ranged from 1-7 days.
- 1 patient was also infected with influenza when tested on admission; 6 patients were given antiviral therapy.
- There were 4 preterm births (with 2 neonates with low birth weight) from causes unrelated to COVID-19.

PHO reviewer's comments

- The study findings do not address the question of COVID-19 transmission during vaginal delivery, as vaginal samples were not collected and all neonates were delivered by C-section. In addition, the risk of intrauterine vertical transmission during the first or second trimester was not assessed as all patients were infected late in their third trimester.

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Review of "Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records". Toronto, ON: Queens's Printer for Ontario; 2020.

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