

Investigation of SARS-CoV-2 RNA in Milk Produced by Women with COVID-19 and Follow-Up of Their Infants: A Preliminary Study

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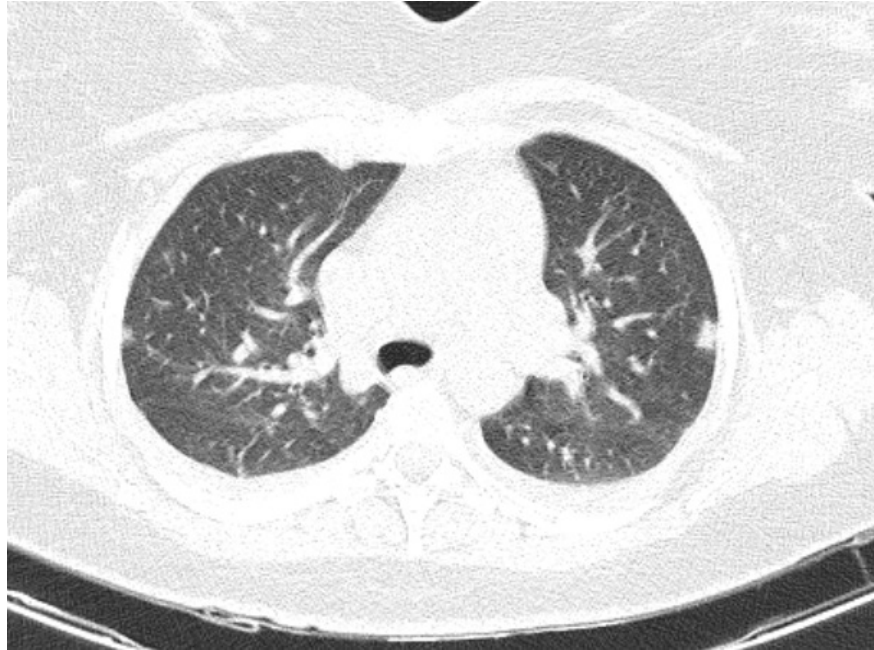
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Abstract

Objectives: Studies have shown that severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is primarily transmitted from person to person via airborne droplets. It is unclear whether it can be shed into human milk and transmitted to a child via breastfeeding. We investigated the presence of SARS-CoV-2 RNA in human milk samples of 15 mothers with coronavirus disease 19 (COVID-19) and in the throat swab samples of their infants. **Methods:** This is a prospective observational study in which breast milk samples were collected from 15 mothers with COVID-19. The presence of SARS-CoV-2 RNA in the whole human milk samples of the patients was investigated using RT-qPCR. All of the infants underwent a clinical follow-up during their 14-day isolation and their throat swab samples were tested for SARS-CoV-2 RNA. **Results:** Of 15 mothers with COVID-19, SARS-CoV-2 RNA was detected in milk samples from 4 mothers. The throat swab samples from these mothers' infants were found to be positive for SARS-CoV-2 RNA. Three of the four mothers were breastfeeding. In addition, during the 14-day isolation, all but three of the mothers breastfed their infants. Of the 12 breastfed infants, while the test for SARS-CoV-2 RNA in throat swab samples was negative in six of the infants, the other six infants, who had mild COVID-19 symptoms, tested positive for SARS-CoV-2 RNA. Clinical outcomes of all mothers and infants were uneventful. **Conclusion:** To our knowledge, this is the first case series with the largest number of cases with SARS-CoV-2 RNA positivity in human milk samples of mothers with COVID-19. However, we believe that the benefits of breastfeeding may outweigh the risk of SARS-CoV-2 infection in infants

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