Transplacental transmission of influenza A (H1N1) virus - is it really possible?

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To the Editor,

We read with great interest the recent paper by Çetinkaya et al.\(^1\) about the transplacental transmission of novel pandemic influenza A (H1N1) virus, in which they described an infant born at 31 weeks’ gestational age to an infected mother. The authors demonstrated the virus on nasal swabs of both the mother and infant and discussed transvertical transmission of H1N1.

We previously shared our H1N1 pandemic influenza experiences in two separate reports that were about transplacental transmission and the measures that should be taken in neonatal intensive care units (NICUs) during the pandemics. From November 9 through December 25, 82 pregnant women were admitted to our hospital with suspected or proven H1N1 infection, among whom 27 had laboratory-confirmed infection. During the pandemics, 24 infants were admitted to our NICU, of whom 22 were born to a mother who had proven H1N1 infection with polymerase chain reaction (PCR). The infection control procedures developed for novel H1N1 infection were applied. Nasal swab samples were collected immediately after birth and sent for analysis in order to screen for H1N1 2009 infection, but all samples were PCR-negative. Furthermore, placentas of seven infected women were examined both microscopically and with PCR. Microscopic examination revealed some nonspecific changes similar to the case of Çetinkaya et al., which could not be attributed to the H1N1 infection itself. PCR results of placentas were all negative and did not indicate any viral replication\(^2,3\)-.

Differing from our pathological and PCR examination of placentas, this recent case report indicates that vertical transmission of novel influenza A virus might be possible. We agree with the authors that future studies including a greater number of infants are required in order to support the finding of possible vertical transmission of H1N1 virus and the effects of maternal H1N1 2009 infection on neonatal outcomes.

REFERENCES