



Yellow Fever Vaccine

Revised: February 17, 2020.

Drug Levels and Effects

Summary of Use during Lactation

The yellow fever virus and vaccine are transmitted into breastmilk.[1,2] Yellow fever encephalitis has been reported in breastfed newborns whose mothers received yellow fever vaccine. Administration of yellow fever vaccine to breast-feeding women should be avoided except in situations where exposure to yellow fever viruses cannot be avoided or postponed. Infants under 6 months appear to be at an increased risk of encephalitis from the vaccine and should not be vaccinated. Infants over 9 months of age should be vaccinated themselves if they will be traveling with their mother to a yellow-fever endemic area.[3,4] Exposure to yellow fever vaccine via breastmilk would not increase the risk to an infant who also receives the vaccination.

Drug Levels

Maternal Levels. Relevant published information was not found as of the revision date.

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

One probable case of yellow fever vaccine-associated neurologic disease (YEL-AND) was reported in a 38-day-old infant whose mother was vaccinated 24 days earlier with the Brazilian-manufactured yellow fever vaccine 17D (probably the 17-DD strain). The infant was exclusively breastfed. Although it was not possible to determine if the breast milk was the mode of transmission, no other plausible cause was identified.[5]

A woman who was exclusively nursing her newborn received 17DD yellow fever vaccine on day 15 postpartum. Eight days later her infant developed fever, irritability and refused to nurse. One day later, the infant developed seizure-like activity. The infant was hospitalized and had periods of somnolence and irritability and required intravenous anticonvulsants to control seizures. An MRI was consistent with encephalitis. Yellow fever-specific IgM antibodies were detected in serum and CSF. Laboratory examination of the infant's cerebrospinal fluid confirmed the presence of a viral strain identical to the vaccine. This was the first case of laboratory-confirmed, breastfeeding-associated transmission of 17DD yellow fever vaccine virus from a recently vaccinated mother.[3]

A Canadian mother had received a yellow fever vaccination (probably the 17D-204 strain) when her breastfed (extent not stated) infant was 10 days of age. At 5 weeks of age, the infant developed focal seizures on alternating

sides, poor appetite, and vomiting following a 2-day history of fever and irritability. The infant's serum was positive for yellow fever and the cerebrospinal fluid was positive for yellow fever antigen, but negative for yellow fever virus. Although the authors could not entirely rule out other causes, they judged the adverse reaction to probably be caused by yellow fever vaccine transmitted via breastmilk to the infant.[1]

Effects on Lactation and Breastmilk

Relevant published information was not found as of the revision date.

References

1. Kuhn S, Twele-Montecinos L, MacDonald J, et al. Case report: probable transmission of vaccine strain of yellow fever virus to an infant via breast milk. *CMAJ*. 2011;183:E243–5. PubMed PMID: 21324845.
2. Ribeiro AF, Brasil LMCR, Prada RM, et al. Detection of wild-type yellow fever virus in breast milk. *Pediatr Infect Dis J*. 2020;39:68–9. PubMed PMID: 31725551.
3. Anon. Transmission of yellow fever vaccine virus through breast-feeding --- Brazil, 2009. *MMWR Morb Mortal Wkly Rep*. 2010;59:130–2. PubMed PMID: 20150888.
4. Centers for Disease Control and Prevention. *CDC Yellow Book 2020: Health Information for International Travel*. New York: Oxford University Press 2019. Available at: <https://wwwnc.cdc.gov/travel/yellowbook/2020/travel-related-infectious-diseases/malaria>
5. Traiber C, Amaral PC, Ritter VR, et al. Infant meningoencephalitis probably caused by yellow fever vaccine virus transmitted via breastmilk. *J Pediatr (Rio J)*. 2011;87:269–72. PubMed PMID: 21461453.

Substance Identification

Substance Name

Yellow Fever Vaccine

Drug Class

Breast Feeding

Lactation

Vaccines