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Chickenpox Infection During Lactation

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Dear Editor:

VARICELLA–ZOSTER VIRUS (VZV) infections may occur in females of reproductive age. Postnatal transmission occurs through respiratory droplets and contact or aerosols from the skin lesions.[1] People are contagious from 1–2 days before onset of the rash until all lesions are crusted.[2,3] Separation of an infant from the mother with varicella and interruption of breastfeeding are recommended while the mother is infectious. It is advised that expressed milk be given if there are no skin lesions on the breast.[2,3] In the *Red Book* there are recommendations only for newborns whose mothers had varicella infection.[4] It is difficult to find any concrete recommendation on this issue in the guidelines. Therefore case reports may be valuable to solve the controversies. Herein, we report a lactating mother with chickenpox who successfully breastfed her baby.

A 27-year-old lactating woman was referred to our hospital with eruptions throughout her skin for 3 days. Physical examination revealed that eruptions were similar to VZV infection. There was no varicella infection in her history. Her neighbor's child had had varicella infection 1 week before the beginning of her disease. Laboratory investigation revealed that varicella–zoster immunoglobulin M was positive in the mother's blood sample. She had a 4-month-old infant who was being exclusively breastfed. There were VZV eruptions as papules and blisters on the areolas of both breasts.

The decision about breastfeeding was discussed with the mother, who wanted to continue with breastfeeding. VZV DNA was detected in breastmilk by polymerase chain reaction 6 days after the beginning of the eruptions. The mother did not stop breastfeeding her baby. The mother and the baby did not get varicella–zoster immunglobulin because it was not available in the country. During the follow-up period the mother had pneumonia, which was thought to be due to the varicella infection, on Day 10 after eruptions were noted. Upon the diagnosis of pneumonia, she was put on parenteral acylovir therapy for 7 days and recovered without any sequela. The baby was followed up for 3 weeks and did not have any eruptions.

The transmission of infection through breastmilk is well documented for cytomegalovirus, human immunodeficiency virus type 1, and human T-lymphotrophic virus type I.[1] VZV infection transmission occurs through respiratory droplets and contact or aerosolization of virus from the skin lesions of either varicella or zoster.[2] In a previous study VZV DNA was detected by polymerase chain reaction in the breastmilk, peripheral blood, and skin lesions of a postpartum mother with chickenpox.[1]

It is recommended that until the eruptions dry, the mother and infant should be separated, and expressed breastmilk be given to the infant if no skin lesions involve the breasts or as soon as varicella–zoster immunoglobulin has been given to the infant.[3,4] For an infant whose mother's rash developed between 5 days before and 48 hours after delivery, varicella–zoster immune globulin is indicated. If this globulin is not available, some experts recommend prophylaxis with acyclovir or valacyclovir. However, limited data on acyclovir as postexposure prophylaxis are available for healthy children.[3]

On the other hand, it may be argued that if a mother has contracted chickenpox, the antibodies in her milk confer immunity to her breastfed baby against chickenpox. This passive immunization may avoid or spare a breastfed baby's symptoms of chickenpox. Recently, it was reported that a 9-year-old child and his father who developed VZV infection were given frozen breastmilk, and the increase of rashes was stopped.[5] So, as suggested by some authors, separation of a breastfed baby from the mother with varicella infection may not be necessary.[6]

In our case, the mother with VZV DNA positivity in her breastmilk and eruptions in the areolas of her breasts continued to breastfeed her baby without receiving any antiviral medicine until Day 10 after the eruptions were noted, when the mother developed pneumonia. We did not have any laboratory investigation for live virus, but we followed up the infant for 3 weeks, and no eruption was observed in the baby. We do not think that the very small amounts of acyclovir received by the infant through breastmilk had any impact on the prevention of varicella infection in the baby.

Our case suggests that a mother may safely continue to breastfeed her baby during VZV infection. but more case reports are required to reach a final conclusion on this issue.

References

1. Yoshida M, Tezuka T, Hiruma M. Detection of varicella-zoster virus DNA in maternal breastmilk from a mother with herpes zoster. *Clin Diagn Virol* 1995;4:61–65.

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2. Lawrence RA, Lawrence RM. *Breastfeeding: A Guide for the Medical Professional*, 7th Edition. Elsevier Mosby, St. Louis, 2011, p. 454.
3. American Academy of Pediatrics Section on Breastfeeding. Policy statement: Breastfeeding and the use of human milk. *Pediatrics* 2012;129:e827–e841. Available at www.pediatrics.org/cgi/content/full/129/3/e827 (accessed September 2, 2014).
4. Pickering LK, Baker CJ, Kimberlin DW, eds. *Red Book 2012: 2012 Report of the Commitee on Infectious Diseases*, 29th ed. American Academy of Pediatrics, Elk Grove Village, IL, 2012.
5. Verd S, López E. Management of chickenpox with frozen mother's milk. *Altern Complement Med* 2012;18:808–810.
6. Sendelbach DM, Sanchez PJ. Varicella, influenza: Not necessary to separate mother and infant. *Pediatrics* 2012;130:e464; author reply e465–e466.

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