Metapneumovirus Underreported in Bronchiolitis

BY JEFF EVANS
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Human metapneumovirus may be underreported as a pathogen in bronchiolitis and may lead to admittance to intensive care, especially when it infects infants in combination with human respiratory syncytial virus, reported Malcolm G. Semple, M.D., of the University of Liverpool (England), and his associates.

During the 2001-2002 winter season at one hospital, dual infection human metapneumovirus (hMPV) and human respiratory syncytial virus (hRSV) occurred at a significantly higher rate in infants with bronchiolitis who were admitted to the pediatric intensive care unit on mechanical ventilation (72%, 18 of 25) than in infants with bronchiolitis who were sent to the general wards (10%, 15 of 171). The investigators said that the temporal distribution of hMPV infections in infants in the pediatric ICU made it unlikely that the infections were nosocomial. In a subset of infants with complete clinical information, dual infection with hMPV and hRSV was not statistically significantly associated with disease severity in the retrospective study (J. Infect. Dis. 2005;191:382-6).

In nasopharyngeal aspirate and bronchoalveolar lavage samples that were taken at the same time from nine hMPV-infected infants on mechanical ventilation, reverse-transcriptase polymerase chain reaction (RT-PCR) detected hMPV in only one nasopharyngeal aspirate and in all nine bronchoalveolar lavages. Of 18 infants who received mechanical ventilation, RT-PCR found hMPV infection in bronchoalveolar lavages from 15 infants and in nasopharyngeal aspirates from 4 infants.

"Collection of [bronchoalveolar lavage] samples would therefore appear to be the preferred sampling method for the detection of hMPV in infants receiving mechanical ventilation." ■

Transmission of MRSA Traced To Breast Milk

Washington — Methicillin-resistant *Staphylococcus aureus* has been transmitted via breast milk, Dawn Terashita Gastelum, M.D., reported in a poster presentation at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy.

The two reported cases, which resulted in MRSA outbreaks in neonatal intensive care units at two Los Angeles hospitals, suggest that hospital NICUs should consider screening mothers and family members for skin lesions at the time of delivery and obtaining breast milk cultures before infant feedings, said Dr. Terashita Gastelum of the Los Angeles County Department of Health Services.

The first case was in a premature (1,180 g at birth) quadruplet born to an Algerian mother who developed mastitis the day after delivery and was treated with dicloxacillin. Her breast milk was collected 3 days later and fed to the quadruplets. Twelve days after that, the baby girl died of MRSA sepsis.

The bacterium subsequently was found in nasopharyngeal cultures of the mother and her three surviving infants, another infant in the NICU, and the mother's frozen postpartum breast milk samples. Molecular fingerprinting was identical for the four infants and the breast milk, but the mother's nasopharyngeal isolate was different.

"Since the mother was actually colonized by a different strain, it is unlikely that the infants obtained the MRSA during birth or through skin-to-skin contact with the mother. The breast milk is the only known source," Dr. Terashita Gastelum said.

And, though it is possible to be colonized with two different strains of MRSA, it's rare. On the other hand, "it is easy to imagine that the macerated skin of the nipple on a postpartum woman is more susceptible to infection from any organism," she said at the conference, sponsored by the American Society for Microbiology.

The second case was an 1,199-g male infant who was fed breast milk the day of birth and developed MRSA sepsis 8 days later. The mother had no sign of mastitis, but MRSA was cultured from her breast milk collected on the day of delivery. Four other infants from the NICU were also positive: two colonized and two infected.

—Miriam E. Tucker