

Reply

The risk of transmission of HIV through breastfeeding is high when primary maternal HIV-1 infection occurs in the post-natal period. Reported post-natal transmission rates of HIV-1 infection range from 16% in Zambia(1) to 27% in Australia(2) and 40% in Rwanda(3). Transmission of HIV-1 infection through breastmilk in prenatally infected women is difficult to determine due to the problems in the definite diagnosis of HIV-1 in the newborn period. To compensate for this, Dunn *et al.* (4) combined HIV infection rates in breastfed and artificially fed infants born to HIV-1 infected infants from six studies. From this meta-analysis, an additional risk of 14% was attributed to breastfeeding. A more recent study(5) however, suggests that the risk of HIV-1 infection by breastfeeding is low in a woman who is prenatally infected with HIV-1.

Factors which determine the transmission of HIV-1 infection through breastmilk are complex and incompletely understood. In a study(5), as many as 74% of breastmilk samples 6 weeks after delivery were shown to have detectable HIV-1 DNA by PCR technology. However, the presence of HIV-1 DNA does not indicate the presence of actively replicating, infectious virus. Antigen p24, which is considered a better indicator of the presence of replicating virus was however not found in any of the milk samples. The stage of the maternal disease and the presence of antibodies in breastmilk are important determinants of transmission of infection through this route. Till these factors are completely understood, it would be prudent to make every attempt to prevent HIV-1 infection in the newborns by avoiding breastfeeding by HIV-1 infected mothers.

The WHO recommendations for breastfeeding by HIV infected women are merely guidelines. We need to look at our own epidemiology and infant mortality rates before deciding whether the risks due to artificial feeding in our country outweigh the risk of HIV-1 infection through breastfeeding.

I agree with Dr. Selvan that the HIV-1 virus is not a hardy virus and could easily be inactivated by heat. In practical terms however, a mother who cannot be trusted to safely feed her baby with artificial milk could hardly be expected to sterilize her own expressed breastmilk before feeding her baby.

Mahesh V. Balsekar,
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