DNA sequencing confirms HIV transmission through surrogate breastfeeding

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(Medical Xpress)—DNA sequencing has provided evidence of HIV-1 transmission from an infected woman breastfeeding her niece in South Africa, drawing attention to infant feeding practices and the need for HIV testing of all breastfeeding surrogates as well as mothers.

The case, published in the *Lancet*, describes a ten-week-old girl who was taken to hospital by her HIV-negative mother. Once the daughter was diagnosed, HIV transmission was initially thought to have taken place in hospital; however, the mother confirmed that her sister had been breastfeeding the baby intermittently over the past four weeks. The sister and her own five-month-old child were subsequently found to be HIV positive.

DNA sequencing of virus samples from the girl, the aunt and the cousin confirmed that the girl had indeed been infected through the surrogate breastfeeding of her aunt.

Dr Tulio de Oliveira from the Africa Centre for Health and Population Studies in South Africa, senior author of the case study, said: "This was a devastating case for a family in South Africa. The aunt breastfed the infant out of great kindness so the mother could go back to work. However, this ended up as a tragedy. "

The World Health Organization supports six months of exclusive breastfeeding for all infants, including HIV-exposed infants, who should receive antiretroviral therapy to prevent mother-to-child transmission.

The study highlights the need to identify the HIV status of surrogate breastfeeders as well as mothers, in order to ensure that HIV-exposed infants have access to antiretroviral therapy as early as possible to minimise the risk of transmission.

More information: Goedhals D et al. The tainted milk of human kindness. *Lancet* 2012;380(9842):702.

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