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Short Communication

Breastfeeding in HIV Positive Mothers: Yay or Nay?

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Among other known routes of transmission of the Human Immunodeficiency Virus (HIV) infection, transmission from mother to the newborn is the most researched one. The research has been directed to reduce the risk of transmission while optimizing the health of the child.

HIV transmission occurs in utero, peripartum, and postnatally via breastfeeding. Without any kind of interventions in the form of mother taking antiretroviral therapy, or a prelabour caesarean and avoidance of breastfeeding, the risk of perinatal HIV transmission is estimated to be in the range of 20 to 45 percent [1]. When no drug therapy for HIV was available, the risk of postnatal transmission through breastfeeding was estimated to be 15 - 30% higher than that with no breastfeeding [2]. Thus, one of the most important contraindications for breastfeeding became mothers being HIV positive. One meta-analysis suggested that the risk of late breast milk transmission (postnatal transmission occurring after one month of age) is relatively constant at 8.9 transmissions per 100 person-years of breastfeeding and that the risk of transmission is highest in early months of the infant's life [3].

Risk factors known to increase the chances of HIV transmission through breast milk are:

- Higher maternal plasma HIV RNA and breast milk HIV DNA and RNA levels.
- Acute versus chronic HIV infection.
- Immunosuppressed mothers with low CD4 cell counts.
- Presence of HIV drug resistance in the mother.
- Mastitis and breast abscess.
- Mixed feeding (breastfeeding along with ingestion of solids/liquids) during the first three to six months of life.

However, avoiding breastfeeding in infants of HIV infected women may lead to significant morbidity and mortality, especially in the developing nations. In an analysis of pooled data from studies in Asia and Africa, lack of breastfeeding was the major reason behind mortality in HIV-exposed but uninfected infants.

This led to the World Health Organization (WHO) releasing its consolidated guidelines on HIV in the year 2013 [4]. It was recommended that all pregnant women should be started on ART in the form of Tenofovir, Lamivudine and Efavirenz as soon as they are detected to be HIV positive and the therapy should be continued lifelong. It was also stated that decrease in mother to child transmission does not require a prelabour caesarean section (HIV positive mother as an indication) or avoidance of breast feeding. So, it was recommended to allow vaginal delivery, caesarean section only for obstetrical indications and exclusive breastfeeding thereafter along with infant antiret-

roviral prophylaxis. The risk of mother to child transmission (MTCT) transmission has been found to range from 5% to < 1% following the introduction of this guidelines [4].

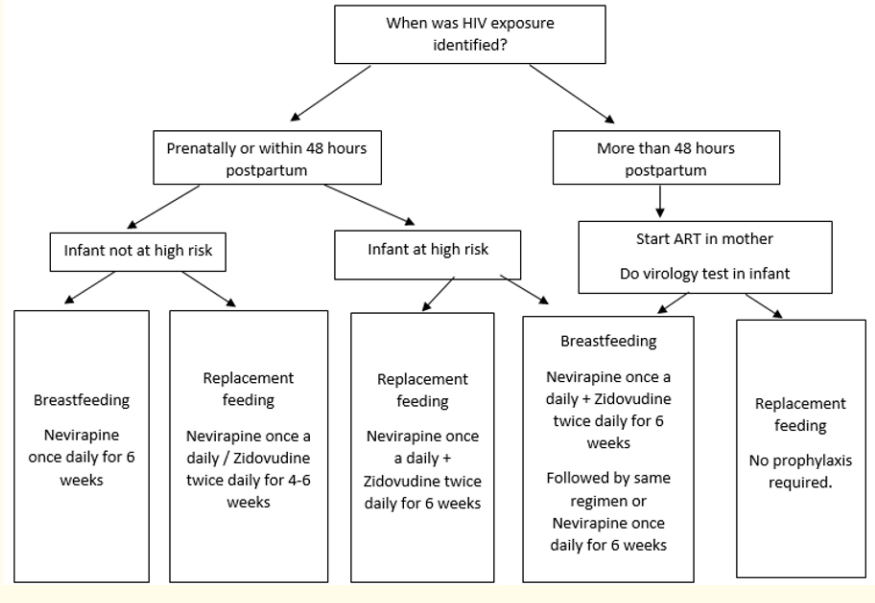
More recently, revised consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring have been released by the WHO [5]. It recommends tenofovir, lamivudine, and dolutegravir (TLD) regimen for all adults in resource-limited settings as the preferred first-line regimen. The reason behind this change of drug regimen was greater efficacy, better tolerability and availability of a once-daily fixed-dose combination of TLD. The combination of TDF + 3TC + EFV was recommended as an alternative option. Infant antiretroviral use remains important as short-term postexposure prophylaxis after delivery and even in settings in which maternal antiretroviral use is delayed or interrupted during breastfeeding.

In these guidelines, the WHO recommends that for mothers known to have HIV, public health authorities should focus on providing antiretroviral interventions to prevent transmission and promoting breastfeeding. Alternatively, the women may be advised to avoid breastfeeding completely if she is capable to provide alternate sources of safe nutrition.

Promoting breastfeeding with antiretroviral interventions is the better strategy in most resource-limited settings. WHO recommends exclusive breast feeding (EBF) for 6 months, in combination with maternal anti-retroviral therapy (ART) and short-term period of infant prophylaxis optimizing the health benefits of breastfeeding for the infant. Table 1 demonstrate the factors which make the infant high risk for contracting the HIV infection, for which prolonged duration of prophylaxis may be required. Flowchart 1 depicts the types of infant antiretroviral therapy. Subsequently, breastfeeding, along with maternal ART (with provision of ART adherence support) and appropriate complementary feeding, should continue without restrictions for up to 24 months or longer, similar to general population.

• Mother with viral load > 1000 copies/ml within four weeks of delivery.
• Mother received no or less than 4 weeks of ART at the time of delivery.
• Mothers acquired new HIV infection during pregnancy.

Table 1: *High risk infants.*



Flowchart 1: *Infant Antiretroviral therapy- Initiation and type of therapy required.*

Specific counselling may be needed to help females continue antiretrovirals during breastfeeding. Mothers will need practical assistance with latching their baby comfortably to the breast and ensuring effective breastfeeding. They may need advice and ongoing follow-up to avoid, minimize and quickly resolve any postpartum breast or nipple problems, such as sore nipples, breast engorgement, or symptoms of mastitis.

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