Brief Report

Prevention of Mother to Child Transmission of HIV in Burkina Faso: Breastfeeding and Wet Nursing

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Summary

Objective: A survey of the knowledge of women about HIV and breastfeeding.
Method and Patients: The study employed a voluntary questionnaire. Data were analyzed using Epi info 6 with χ² test and P < 0.05 was considered as statistically significant.
Results: Three hundred women agreed to participate in the study. Only 82 realized that HIV could be transmitted by breastmilk. After information about HIV transmission, 37 stated that they would still breastfeed. On the other hand, 220 (74.1%) stated that they would accept breastfeeding by a wet nurse. Two hundred and eighty (69.8%) would accept to serve as the wet nurse for an infant born to an HIV-infected woman. There was an association between acceptance of HIV screening and willingness to breastfeed (P = 0.00206529).
Conclusion: Appropriate Prevention of Mother-To-Child Transmission (PMTCT) measures must be made available to HIV-infected women. Detailed studies must be performed to evaluate the feasibility of this approach in resource limited settings.

Key words: PMTCT, HIV, breastmilk, developing countries.

Introduction

Due to the risk of transmission of HIV through breastfeeding, maternal HIV is a contraindication to breastfeeding in industrialized countries [1–3]. The WHO recommends avoidance of breastfeeding for HIV-infected women whenever replacement feeding is acceptable, feasible, affordable, sustainable and safe (‘AFASS’; [4–7]). In recent years, formula feeding has been promoted for the children of HIV-infected women in resource poor countries. In many settings, the ‘AFASS’ conditions have been applied loosely or disregarded altogether in the effort to promote breast milk substitutes. Meanwhile, evidence is mounting that health risks associated with unsafe formula feeding in resource poor settings frequently outweigh the risk of contracting the HIV through breastfeeding [8]. The previous reason leading many health workers to counsel HIV-infected women about infant feeding with much greater sensitivity about whether the ‘AFASS’ conditions for formula feeding truly exist. Meanwhile, researchers are defining the conditions under which transmission of HIV through breastfeeding is minimized. Anti-retroviral therapy for mother and/or child and exclusive breastfeeding are emerging as measures that decrease the risk of mother-to-child transmission of HIV [8–10].

Despite the growing body of knowledge about measures to reduce the risk of mother-to-child HIV transmission, practical alternatives to breastfeeding are still needed. One of the least explored measures for avoiding transmission of HIV through mother’s milk is wet nursing. In developing countries, wet nursing saves the lives of many children whose mothers die during delivery [11]. This practice has never been included, however, in the HIV guidelines of Burkina Faso and is seldom considered in recommendations for reducing infant mortality in Africa [12]. Our study was designed to investigate women’s knowledge about HIV and breastfeeding, and to assess their attitudes about wet nursing in this context.

Methods

A voluntary questionnaire was administered to 300 women of childbearing age during routine clinic visits by an obstetrician gynecologist, a pediatrician or a midwife in the setting of the CHU-SSOB/Gyn
Department, the CHU-SS Pediatrics Department or the Guimbi Community Health Center, respectively. Information was collected on:

- socio-demographics;
- knowledge about infant feeding;
- willingness to act as a wet nurse;
- acceptance of HIV screening.

Statistical analysis was performed with Epiinfo Version 6, using $\chi^2$ analysis. Differences were considered statistically significant when $P \leq 0.05$.

**Results**

**Socio-demographic characteristics**

The mean age for the 300 study participants was 30 years. Mean gravity and parity were 3.38 and 2.86, respectively. Other characteristics are summarized in Table 1.

**Knowledge and views about breastfeeding and wet nursing**

Among 213 participants providing responses to questions about infant feeding, 95 (44.6%) were actively breastfeeding (Table 2). The mean reported duration of breastfeeding was 20 months (range 0–48 months). Table 3 summarizes study’s women points of view after given informations about HIV transmission through breastfeeding. After learning about the risk of HIV transmission through breastfeeding, 37 of 298 women (12.4%) said they would continue breastfeeding even if they were seropositive. Of 35 women who would already be infected, making the risk of transmission through breastfeeding irrelevant. Five explained their reasoning, 10 believed that their child would already be infected, making the risk of transmission through breastfeeding irrelevant. Five stated that they had insufficient means to provide breast milk alternatives. Mothers with secondary-level education were more likely to choose bottle-feeding than those with less education: $\chi^2 = 24.93; P = 0.0000006; RR = 2.23; 1.62 < RR < 3.08$.

Among 297 responders, 220 women (74.1%) would allow another woman to breastfeed their baby, preferably their sister (38.5%) or their mother (34.4%). Of 298 women questioned, 208 (69.8%) would agree to breastfeed the child of an HIV-infected woman. Of the 90 women who would refuse to breastfeed the child of an HIV-infected mother, fear of contracting the virus was the reason most frequently mentioned. Among those who would agree to serve as a wet nurse, 64.5% would prefer breast milk expression to direct breastfeeding.

There were 174 (59.4%) of 293 who agreed to be screened for HIV. Women who were not pregnant were more likely to refuse HIV screening than pregnant women: $\chi^2 = 9.03; P = 0.00265319; RR = 1.55; 1.12 < RR < 2.16$. Breastfeeding women agreed to HIV screening more frequently than non-breastfeeding women: $\chi^2 = 13.06; P = 0.00030089$; $RR = 1.48; 1.21 < RR < 1.82$. Screening was accepted more frequently by women who would agree to breastfeed an HIV-exposed infant than by women who would refuse to breastfeed an HIV-exposed infant: $\chi^2 = 9.49; P = 0.00206529; RR = 1.44; 1.12 < RR < 1.84$.

**Discussion**

Knowledge about HIV transmission through breastfeeding was lacking in our sample population. Once informed about this route of HIV transmission, however, most of the women preferred not to breastfeed if found to be HIV infected.

Many women (40.6%) refused to undergo HIV testing. Historically, voluntary HIV testing has been difficult to promote in Burkina Faso due to lack of awareness about treatment availability. Reproduction and child rearing are critical determinants of women’s status in West African society. The prospect of HIV/AIDS interfering with reproductive life may discourage some from agreeing to HIV screening. Our results suggest that women are more likely to accept screening once informed about the availability and importance of treatment. Accessible, comprehensive and effective Prevention of Mother-To-Child Transmission (PMTCT) and HIV/AIDS medical services are crucial for HIV testing to be widely accepted among pregnant women.

Breastfeeding is the predominant form of infant feeding in Africa, and it remains an important mode
of vertical transmission of HIV. It is therefore critical that the global health community investigate, adopt and promote practices for providing mother’s milk in a manner that minimizes the risk of transmitting HIV. Many measures have been shown to reduce mother-to-child transmission of HIV through breast milk and are being promoted in Africa now. Our survey illustrates that wet nursing is one generally acceptable measure, even though it is yet to become widely promoted [12, 13].

In order to achieve a reduction in vertical HIV transmission in resource poor countries comparable with that which has been achieved in industrialized countries, all locally appropriate measures must be explored. Our survey suggests that wet nursing is a promising PMTCT measure in areas where the practice is already common. With the implementation of PMTCT programs that include such locally appropriate options, pediatric HIV prevalence and early childhood mortality could be dramatically reduced.

References


