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LETTER TO THE EDITOR

Stopping breastfeeding to prevent vertical transmission of HTLV-1 in resource-poor settings: beneficial or harmful?

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In a recent issue of this journal Mylonas et al. [1] reviewed human T-lymphotropic virus type 1 (HTLV-1) infection and its implications in gynecology and obstetrics. Although HTLV-1 is rare in many populations, it occurs worldwide and is associated with a substantial disease burden and a high risk of vertical transmission. The authors provide recommendations for prevention of sexual and vertical transmission of HTLV-1. One of the recommendations is the following: 'If stopping breastfeeding is not possible, for example due to socio-economical circumstances, short-term breastfeeding for 3 to a maximum of 6 months should be advocated'. The recommendation in the review is based on two studies from Japan showing reductions of vertical transmission by limiting or avoiding breastfeeding. To our knowledge, no international guidelines exist (e.g. from the WHO or CDC) on breastfeeding and HTLV-1 prevention in resource-poor, developing countries. Therefore, it is important to carefully take into account the risks versus the benefits of advocating short-term breastfeeding in developing countries.

Various studies have shown that prolonged breastfeeding is associated with an increased risk of HTLV-1 transmission and avoiding breastfeeding can lead to a dramatic reduction in transmission [2]. A high maternal proviral load in combination with waning antibodies in the child leads to an increased risk of HTLV-1 transmission, especially after 6–12 months after birth [3]. However, the key question is whether the benefits of avoiding HTLV-1 infection outweigh the risks of not breastfeeding. As the review points out, HTLV-1 causes adult T-cell leukemia (ATL) or tropical spastic paraparesis (TSP) in about 5% of infected individuals and is associated with a number of infections and inflammations. On the other hand, the risks of early weaning are substantial. The promotion of breastfeeding for 6–11 months has been estimated to be the most effective strategy to prevent child mortality in resource-limited settings and the WHO recommends at least 6 months of exclusive breastfeeding [4]. Our work in Guinea-Bissau, one of the poorest countries in Sub Saharan Africa with a high prevalence of HTLV-1 (5%) [5, 6], has shown that early weaning (before 12 months) is associated with increased mortality and increased risk of diarrheal diseases among children [7, 8]. For example, the mortality among weaned children was sixfold higher compared to breastfed children during the civil war in Guinea-Bissau in 1996–1997 [7].

In many Sub Saharan countries, vertical transmission of HIV is of major concern. In an editorial from 2010, Humphrey points out the increasing amount of data supporting the fact that in Sub Saharan Africa the risks of early weaning do not outweigh the risks of a possible HIV infection [9]. The 2010 UNAIDS guidelines advice at least 6 months of exclusive breastfeeding and advice to continue breastfeeding after this time if replacement feeding is not feasible, even when anti-retroviral (ARV) drugs are not available (if available, ARVs are recommended for mother and child to reduce the risk of transmission) [10]. Thus, for an infection that has much larger health implications

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than HTLV-1, breastfeeding longer than 6 months is recommended in certain settings where replacement feeding is not feasible.

HTLV-1 infected pregnant women from a poor socio-economic background in a developed country merit extra attention and the advice about not breastfeeding should be tailored to the exact circumstances of the woman. However, it is very likely that these women will have access to good replacement feeding and therefore it seems rational to advise them similarly as women from higher socio-economic status, i.e., to refrain from breastfeeding altogether.

In conclusion, in resource-poor settings, like Guinea-Bissau, the immediate health risks of the advocated weaning at 3–6 months are likely to be bigger than the risks of HTLV-1 related morbidity and mortality. This is likely to vary by country and will strongly depend on the socio-economic circumstances and current breastfeeding practices in the country. The available data so far do not support early weaning to prevent vertical transmission of HTLV-1 in resource-limited settings.

Conflict of interest We declare that we have no conflict of interest.

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