

# Current Status of the Nutritional Guidance of Baby to Human T-Cell Leukemia/Lymphoma Virus Type I Carriers by Japanese Obstetricians

Shunji Suzuki<sup>a, b</sup>, Masanobu Tanaka<sup>a</sup>, Katsuyuki Kinoshita<sup>a</sup>

## To the Editor

In humans, breast-feeding is the major route for mother-to-child transmission of human T-cell leukemia/lymphoma virus type I (HTLV-I). HTLV-I transmission by breast milk is associated with ingestion of infected cells and can be prevented by formula-feeding [1]. Therefore, in most of the developed world, mothers with a proven HTLV-I infection should be advised not to breast-feed their babies.

In our recent observation in Japan, the number of HTLV-1 carrier in Japanese pregnant women has been estimated to be 1,620 (0.16% of all pregnant women) per year [2]. Based on the guidelines for obstetrical practice in Japan, the HTLV-1 carrier should be recommended to be instructed in the following methods as alternatives to breast-feeding for the prevention of HTLV-1 vertical transmission: 1) formula feeding, 2) frozen-thawed breast milk and 3) short-term breast-feeding within the first 3 months after birth [3]. However, the current status of the nutritional guidance of baby to HTLV-1 carriers by Japanese obstetricians has not been well examined.

To examine the current status of mother-to-child transmission of HTLV-I preventing in Japan, on December 2014, we requested 2,544 obstetricians that are members of Japan Association of Obstetricians and Gynecologists (JAOG) and directors of each obstetric facility to provide information of the strategies. Of the 2,544 obstetricians, 1,345 (52.9%) responded.

In cases of pregnant woman with positive western blot (WB) test, 953 (70.9%) of the Japanese obstetricians perform the informed choice of the three methods described above, 337 (25.1%) recommend formula feeding, and six (0.4%) recommend long-term breast milk, respectively. In Japan, because the mother-to-child transmission rates under the above three methods have been reported to be both about 3% [4, 5], about 70% of Japanese obstetricians perform the informed choice

of the three methods as alternatives to breast-feeding. Breast-feeding is beneficial to the health of both the infant and mother, and mothers generally believe this. Therefore, it is possible that many of the HTLV-I-carrier mothers want to choose breast-feeding as the method of feeding their infants. However, the ground studies for the transmission rates with frozen-thawed breast milk and short-term breast-feeding have not been large (n = 64 and 162 in cases of frozen-thawed breast milk and short-term breast-feeding, respectively) [4]. Therefore, we have not yet evaluated the utility of these methods precisely. It is necessary to clarify the issues by follow-up of all cases prospectively.

On the other hand, it has been described that the diagnosis of HTLV-1 carriers in their children is possible at the age of  $\geq 3$ . However, only 698 obstetricians (55.4%) of them recommend the HTLV-1 screening tests for the children of women with positive WB test when they become  $\geq 3$  years old. The HTLV-1 screening tests might fraught with problems of announcements and personal information; however, the results are possible to facilitate the future diagnosis of adult T-cell leukemia and HTLV-1 associated myelopathy. Therefore, it seems to be necessary to convey to the mothers about the diagnostic methods of the HTLV-1 carriers of their children.

These problems will be expected to be elucidated by a nationwide prospective cohort study.

## References

1. van De Perre P, Cartoux M. Retroviral Transmission and Breast-feeding. *Clin Microbiol Infect.* 1995;1(1):6-12.
2. Suzuki S, Tanaka M, Matsuda H, Tsukahara Y, Kuribayashi Y, Gomibuchi H, Miyazaki R, et al. Current status of HTLV-1 carrier in Japanese pregnant women. *J Matern Fetal Neonatal Med.* 2014;27(3):312-313.
3. Minakami H, Maeda T, Fujii T, Hamada H, Iitsuka Y, Itakura A, Itoh H, et al. Guidelines for obstetrical practice in Japan: Japan Society of Obstetrics and Gynecology (JSOG) and Japan Association of Obstetricians and Gynecologists (JAOG) 2014 edition. *J Obstet Gynaecol Res.* 2014;40(6):1469-1499.
4. Saito S. A study of the prevention of mother-to-child transmission of HTLV-I (in Japanese). Ministry of Health, Labour and Welfare (Japan). <http://www.mhlw.go.jp/bu->

Manuscript accepted for publication March 20, 2015

<sup>a</sup>Japan Association of Obstetricians and Gynecologists, Japan

<sup>b</sup>Corresponding Author: Shunji Suzuki, Department of Obstetrics and Gynecology, Japanese Red Cross Katsushika Maternity Hospital, 5-11-12 Tateishi, Katsushika-ku, Tokyo 124-0012, Japan. Email: czg83542@mopera.ne.jp

doi: <http://dx.doi.org/10.14740/ijcp201w>

- nya/kodomo/boshi-hoken16/index.html.
5. Nerome Y, Kojyo K, Ninomiya Y, Ishikawa T, Ogiso A, Takei S, Kawano Y, et al. Current human T-cell lympho-  
tropic virus type 1 mother-to-child transmission preven-  
tion status in Kagoshima. *Pediatr Int.* 2014;56(4):640-  
643.