



HUMAN T-LYMPHOTROPIC VIRUSES IN PREGNANT WOMEN AND THEIR NUANCES: NURSING KNOWLEDGE

VÍRUS T-LINFOTRÓPICOS HUMANOS EM GESTANTES E SUAS NUANCES: SABERES DE ENFERMEIROS

VIRUS T-LINFOTRÓPICOS HUMANOS EN GESTANTES Y SUS NUANCES: SABERES DE ENFERMEROS

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ABSTRACT

Objective: to analyze the knowledge of nurses working in the services - Center for Testing and Counseling/Specialized Attendance Service (CTA/SAE) and Family Health Units (USF) regarding HTLV in pregnant women. **Method:** this is an exploratory, descriptive study with a qualitative approach, with four CTA/SAE nurses and four USF family health units from Juazeiro (BA), Brazil. The data were produced from semi-structured interviews, analyzed by the technique of content analysis in the thematic modality. **Results:** two categories emerged - the silent virus and the knowledge about the disease and when the seropositivity reaches pregnant women. It is acknowledged that nurses are poorly educated during graduation on the subject. **Conclusion:** the insertion of nurses in the discussion about HTLV requires continuity in teaching and the conduct of new research, considering the gaps in the literature on the health-disease process of the virus. **Descriptors:** Sexually Transmitted Diseases; Pregnant Women; Nursing.

RESUMO

Objetivo: analisar os saberes de enfermeiros atuantes nos serviços - Centro de Testagem e Aconselhamento/Serviço de Atendimento Especializado (CTA/SAE) e Unidades de Saúde da Família (USF) no que concerne sobre HTLV em gestantes. **Método:** estudo exploratório, descritivo de abordagem qualitativa, com quatro enfermeiros do CTA/SAE e quatro de USF unidades de saúde da família, e de Juazeiro (BA), Brasil. Os dados foram produzidos a partir de entrevistas semiestruturadas, analisadas pela técnica de Análise de conteúdo na modalidade temática. **Resultados:** emergiram duas categorias - o vírus silencioso e os saberes sobre a doença e quando a soropositividade atinge as gestantes. Reconhece-se que os enfermeiros são pouco instruídos durante a graduação quanto à temática. **Conclusão:** a inserção dos enfermeiros na discussão sobre o HTLV requer continuidade no ensino e na realização de novas pesquisas, tendo em vista as lacunas da literatura sobre o processo saúde-doença do vírus. **Descritores:** Doenças Sexualmente Transmissíveis; Gestantes; Enfermagem.

RESUMEN

Objetivo: analizar los saberes de enfermeros actuantes en los servicios - Centro de Pruebas y Consejo/Servicio de Atendimento Especializado (CTA/SAE) y Unidades de Salud de la Familia (USF) sobre HTLV en gestantes. **Método:** estudio exploratorio, descriptivo de enfoque cualitativo, con cuatro enfermeros de CTA/SAE y cuatro de USF unidades de la salud de la familia de Juazeiro (BA), Brasil. Los datos fueron producidos a partir de entrevistas semi-estructuradas, analizadas por la técnica de Análisis de contenido en la modalidad temática. **Resultados:** surgieron dos categorías - el virus silencioso y los saberes sobre la enfermedad y cuando la seropositividad afecta las gestantes. Se reconoce que los enfermeros son poco instruídos durante la graduación sobre el tema. **Conclusión:** la inserción de los enfermeros en la discusión sobre el HTLV requiere continuidad en la enseñanza y en la realización de nuevas investigaciones, teniendo en vista las lagunas de la literatura sobre el proceso salud-enfermedad del virus. **Descriptores:** Enfermedades de Transmisión Sexual; Mujeres Embarazadas; Enfermería.

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INTRODUCTION

The human T-lymphotropic virus 1 (HTLV-I) was discovered in 1980, being the first oncogenic human retrovirus originating in Africa. HTLV-1 is characterized as an etiologic agent of T cells in adult patients with leukemia, tropical spastic paraparesis, and myelopathy, among other inflammatory diseases.¹ In contrast, another study shows that there is no true origin of the HTLV-I virus since there are indications that human infection has occurred in Africa going to the Caribbean islands through the slave trade and to Japan through the African crew of Portuguese ships in the sixteenth and seventeenth centuries. Thus, while HTLV-I spread throughout the world, HTLV-II arose predominantly in the Western Hemisphere.²

After 20 years of the discovery of HTLV research has been carried out. However, many information regarding its disease is still few evidenced mainly in studies of prevalence in specific groups such as those of blood donors and pregnant women.² With the increase in the number of people infected with HTLV in the world, since the 1990s it has become mandatory to screen blood donors in several countries, including Brazil, to track the virus and obtain routine laboratory diagnosis.¹

T-lymphotropic virus infection, type 1 (HTLV-I) and type 2 (HTLV-II), has attracted attention and aroused researchers' interest by being in geographically defined areas of the world, with significant variations in seroprevalence and higher frequency in women after 40 years old. HTLV-I has a cosmopolitan and heterogeneous distribution, with Japan being the country with the highest seroprevalence rate in the world, reaching around 17% in the southern region.²⁻⁵

In Brazil, it is estimated that 2.5 million people are infected with HTLV-I and II, being more prevalent in the North and Northeast.^{2,4} In a serological screening study carried out in 26 urban centers of the country, the prevalence of HTLV-I and II viruses in Manaus and Florianópolis was 0.1%, in Rio de Janeiro and Recife was 0.3%, in São Paulo was 0.4%, in Salvador was 1.4% and in Mato Grosso do Sul was 0.2%.⁴

During the prenatal visit, serological tests are performed to detect infections in pregnant women, such as human immunodeficiency virus (HIV), syphilis, toxoplasmosis and HTLV, which may imply transmission to the fetus or the newborn. The nurse can request routine and complementary exams to ensure the full professional exercise, guaranteeing the pregnant woman a prudent,

English/Portuguese

safe and risk-free care in the therapeutic behavior, as provided in Resolution COFEN 195/97.⁷

The anti-HTLV test should be offered with pre-test and post-test counseling for pregnant women at the first prenatal visit regardless of their apparent HTLV risk. Therefore, it is necessary that the local protocols revise the ideal time to request the examination during pregnancy, since the diagnosis of HTLV infection, in the preconception period or the beginning of gestation, allows better control of maternal infection and results in the prophylaxis of vertical transmission of this virus.⁸

Because it is not mandatory in prenatal care for low-risk pregnant women, and also because it is not widely used in the literature and among health professionals, the HTLV detection test refers the research to the design of the study object - conceptions of the nurses about HTLV in pregnant women, raising the research question: Which are the conceptions related to HTLV in pregnant women, from the experience of nurses of the Center for Testing and Counseling/Specialized Attendance Service (CTA/SAE) and Family Health Units (USF) from Juazeiro (BA), Brazil?

This study shows social and professional relevance since it can provide more efficient alternatives for the preventive access of the pregnant women to the health policies, destined to them, contributing to the expansion of knowledge about the pathology being studied. Thus, this study aims to analyze the knowledge of nurses working in the services - Center for Testing and Counseling/Specialized Attendance Service (CTA/SAE) and Family Health Units (USF) regarding HTLV in pregnant women.

METHOD

This study is qualitative, exploratory and descriptive research. The research collaborators were the nurses interested in participating in the study and who agreed to sign the Informed Consent Form (TCLE) of the health units of the Tabuleiro family; Penha/Jardim Vitória and Alto da Aliança, incorporated into the study due to the degree of endemicity for HTLV, referenced by CTA/SAE. Therefore, the non-probabilistic sample, of the intentional type, with exhaustion closure, was used in which all individuals available at the study site were invited and included.⁹

The period of collection of the empirical material corresponded to the month of December 2012, through the audio recording feature. The semi-structured interview was

used as a technique for collecting the empirical material, with questions of individual profile identification and guiding questions pertinent to the achievement of the objective proposed in this study.

Interview scripts were applied to the two types of the target audience that were intended to achieve, including the following guiding questions: What do you mean by HTLV? Discuss what you know about the disease; What about HTLV in pregnant women? What could you tell me?

From the transcription of the empirical material, the technique of content analysis was used in the thematic modality, which is a research technique for the purpose of interpreting the empirical material as an integral part of data processing through an objective and systematic description of the content.¹⁰

The project was approved by the Committee of Ethics, and Deontology in Research (CEDEP) of the Federal University of Vale do São Francisco (UNIVASF), under N° 0017/171012, in which ethical principles were respected to collect data. By Resolution 196/9611. As a way of maintaining the confidentiality of the participants in this study, the initials ENF 1 - CTA, ENF 2 - USF was used, meaning the order that the nurses were interviewed and the service they worked.

RESULTS AND DISCUSSION

The research was carried out with four nurses from USF and four from CTA/SAE, ranging from 28 to 56 years old. Among them, two do not have graduate degrees, 3 have up to 2 specializations and 3 with one specialization. Regarding color/race/ethnicity, six considered themselves as white, one brown, and one black. As for marital status, five were married, two were single, and one was divorced. The predominant religion was Catholicism.

In this study, it was noticed that half of the nurses did not have previous knowledge about HTLV in their graduation, because of the eight interviewees, 4 of them had heard some mention about HTLV. This is because it is a pathology recently discussed and it is becoming evident in maternal and child health when it comes to vertical transmission. It is up to the academy to incorporate this trend and discuss HTLV in its curricula based on the work process of the nurse and the ways of insertion of the disease in the collective setting.

It is also noted that 5 of the eight interviewees acquired some knowledge about HTLV in pregnant women, in a unique way, through the internet. Thus, it is necessary to have effective training that incorporates teaching-learning experiences to the professionals directly involved to ensure adequate health care. This means that it is intrinsic to any institution producing goods or services, to be responsible for the continuous improvement of its entire body of personnel.¹²⁻¹³

The interviews were analyzed through the thematic analysis of content, following a qualitative approach.¹⁰ Thus, the statements were divided into two categories according to the approach of the topic, presented and discussed below.

♦ The silent virus and the knowledge about the disease

It is known that HTLV-I and II is a virus transmitted by syringe sharing, sexually, and, to a lesser extent, by the placenta, and by the birth canal. Therefore, in this category, the previous knowledge about the disease, brought in the following statements was grouped.

HTLV is considered a sexually transmitted disease. As it is transmissible, it passes from the mother to the baby. That is why it is our concern to detect it early in this pregnant woman so we can at least be monitoring it and notifying it [...]. (ENF 1 - CTA)

HTLV is a sexually transmitted and bloodborne virus [...]. (ENF 2 - CTA)

My knowledge is that it is caused by a virus, by transmission through sexual intercourse and vertical transmission from mother to child. [...]. HTLV poses risks for the mother and the baby, being a high prenatal risk. (ENF 1 USF)

It is a virus [...] transmitted by sexual intercourse most often, or vertically, from mother to child. (ENF 2 USF)

The transmissibility of HTLV-I and II virus occurs in greater proportions when the transmission is from mother to child through breastfeeding. Thus, in HTLV-I-endemic areas, approximately 25% of breastfed children are recognized to acquire the disease when born to seropositive mothers. Intrauterine or perinatal transmission occurs, but it seems to be less frequent than transmission through breastfeeding. About 5% of children of infected but not breastfed mothers acquire the infection.^{14,4}

Non-use of condoms to prevent sexually transmitted diseases and as a contraceptive method is included among the factors

Sales JRP de, Melo MCP de, Mistura C et al.

Human t-lymphotropic viruses in pregnant...

considered when analyzing risky practices. Regarding symptomatology, in the lines below, nurses acknowledge that most individuals infected with HTLV-I and II do not present symptoms throughout their lives, dying in most cases due to a basic disease than the HTLV.

[...] as it is a disease that spends a lot of time without symptoms, asymptomatic, many people do not even know that they have the disease. (ENF 3 - CTA)

It is known that the pathology is etiologically responsible for some clinical syndromes of a neoplastic, inflammatory or even degenerative nature, but a small group of infected individuals may develop severe clinical manifestations, such as some types of cancer, besides muscular problems (polymyositis), in the joints (arthropathies), lungs (lymphocytic pneumonitis), skin (various dermatitis), ocular region (uveitis), and Sjögren's syndrome, an autoimmune disease that destroys the glands that produce tear and saliva.¹⁵

Although HTLV-I is more prevalent in women, there is a shortage of studies involving this group, especially when searching for socio-demographic, epidemiological and behavioral characteristics of this infection in females.¹⁶

When specifying the pathology in pregnant women, studies on the prevalence of HTLV-I and II in this life cycle are also poorly known, being much more esteemed among blood donors.¹⁷ Next, one of the interviewees also highlights the main types of virus besides recognizing the forms of transmission of HTLV.

It is a virus that exists in two forms, the HTLV-I and II and what I understand is that it is often transmitted through unprotected intercourse, [...] through breastfeeding, and it can also be transmitted in cutting tools. [...]. (ENF 4 - USF)

Brazil is the country with the highest absolute number of cases, according to estimates based on known prevalence that points to some approximately 2.5 million people infected by HTLV-I. HTLV-II is also present in the country, and its prevalence among Brazilian indigenous populations is significant.³

Infection with a human T-cell lymphotropic virus (HTLV-I/II) has been described in geographically defined areas of the world, with significant variations in seroprevalence. HTLV-I and HTLV-II are differentiated mainly by the genes. However, homologous in about 60%. HTLV-I and II have similar biological properties and tropism for T lymphocytes, but HTLV-I preferentially infects CD4+T

lymphocytes, while HTLV-II has tropism for CD8+T lymphocytes, with hematological effect different from HTLV-I.¹⁸ Although it is the pre-established knowledge of the nurses, it is observed that the statements point to a similarity between the HTLV virus and HIV.

[...] it is a virus discovered only a short time ago, at least studies on it are rare. We learned this way, the first cousin of AIDS, very similar in the form of transmission and we discovered a very short time ago that also about pregnant women, is transmitted through breastfeeding as HIV. (ENF 2 - CTA)

HTLV for what I know is a virus that is ... very close to HIV that we end up leaving behind. But in the long run, it has a major problem for the patient's health, a very silent thing, difficult to perceive and to need better attention. (ENF 3 - USF)

HTLV is a virus. That is, let's say, a little brother of HIV, but he has an affinity, not for the same cells than the HIV, it has an affinity for other cells, does not it? It causes, for example, in pregnant women, malformation [...]. (ENF 5 - USF)

HTLV virus has tropism by T-lymphocytes, as well as the virus of HIV/AIDS, and, when it is inside these target cells, under the action of the reverse transcriptase, it promotes the synthesis of DNA tape integrating with the Genome of the host cell.¹⁹⁻²¹

These viruses also share the same forms of transmission. Unlike HIV, it is assumed that inter-human transmission of HTLV-I and II essentially depends on the transmission of infected lymphocytes, and it is important to note that the HTLV virus does not cause AIDS.²²

Regarding the approach of these two viruses, there is a high prevalence of HIV-HTLV co-infection in some Brazilian regions, reaching 15-20% of intravenous drug users in the state of Bahia/Brazil.²² Thus, the true clinical spectrum of HTLV infection is still to be defined.

Thus, it is imperative that nurses provide quality care to HIV-infected pregnant women and/or HTLV in the health services where they are attended, for example, to carry out educational activities with the purpose of promoting health promotion and Prevention of future diseases in primary health care.²³

◆ When seropositivity affects pregnant women

It was noticed in the study that, due to the high incidence of HTLV cases, in the city of Juazeiro-BA, mainly in pregnant women, the concern arises from the need to act early in the interruption of breastfeeding, avoiding, the transmission of the mother to the child.

Sales JRP de, Melo MCP de, Mistura C et al.

All the nurses interviewed reported some knowledge about the subject, as well as the importance of detection and discontinuation of lactation in positive cases. The following interviews reaffirm how new is the knowledge about the subject and that it is only currently discussed and known how to detect the HTLV virus in pregnant women.

It is a new, recent concern of the Ministry of Health, which did not enter the prenatal routine. And from 2010 to here, began to enter the routine, this serology for HTLV, to reduce vertical transmission. (ENF 3 - CTA)
[...] is a big problem because it was not done before, it was not requested. No one knew! Often, the pregnant woman could have the HTLV, it was not notified, and it was not noticed. Now with the screening of pregnant women, already in the obstetric screening, the test, whether it is positive or not, we may be heading for treatment [...]. (ENF 3 - USF)

The increase in the number of women of childbearing age infected by HTLV-I and II viruses has had important repercussions since it carries with it the non-recommendation of breastfeeding. This fact has led many pregnant women to face biological, emotional, psychological and social processes, without the proper assistance of health professionals, arousing feelings of fear, sadness, pain, anguish and guilt in these women, as well as being carriers and transmitters of the virus, still facing the impossibility of breastfeeding their children.²⁴⁻²⁶

Diseases involving both mother and newborn can be obstacles to breastfeeding.²⁷ Thus, in the presence of maternal seropositivity for HTLV-I and II, in which the orientation is not breastfeeding, with the substitution of breastmilk by industrialized artificial milk, it is necessary for the health professional to adequately guide alternative and safe ways of feeding a child when he cannot be breastfed by his mother.²⁷

According to the interviewees below, the prenatal screening is evident, since, through it, the nurse can reduce the risks of vertical transmission of infection, being important the follow-up of the pregnant women by the family health unit.

[...] If a pregnant woman is detected, we may be going to a high-risk prenatal care with the doctor. But, what we may be warning you, is that when she has her baby, we may be trying to avoid transmission through breastfeeding. So, we make it prohibit to a certain extent the breastfeeding [...]. (ENF 4 - USF)

Human t-lymphotropic viruses in pregnant...

[...] I think during the first three months, it can cause some fetal malformation, some problem in the pregnant woman. It has vertical transmission, does not it? That the woman cannot breastfeed when she has HTLV. If you have HTLV, it is contraindicated. Only in cases of HTLV and HIV is contraindicated breastfeeding. (ENF 5 - USF)
[...] We here in the program instituted offering infant formula, that is, for at least the first 18 months. To prevent the mother from breastfeeding, we provide artificial breastfeeding to avoid this infection by vertical transmission. (ENF 1 - CTA)
With this seminar in 2010, attention was drawn to the pregnant woman, that the form of transmission would occur through breast milk and that people, as a health service, had to ensure the mother that she did not breastfeed. From there, we had this concern. We had the first case at the end of 2010 and early 2011, and the question of the people was in providing, guaranteeing artificial milk for this pregnant woman. (ENF 2 - CTA)

Pregnant women with HTLV-I and II virus should be instructed not to breastfeed their children, nor the children of other women, nor should they allow their children to be breastfed by other women. The child should be fed infant formula during the first six months of life, requiring the introduction of complementary foods from there.²⁸

In view of the above, when a pregnant woman is detected as having HTLV, she should be referred to a high-risk prenatal clinic in which she will have all the necessary support for the follow-up of her pregnancy and counseling on the disease, providing the relevant treatment to this pregnant woman, as well as, after childbirth, the infant formula should be available to prevent vertical transmission through breastfeeding.

Because it is a relatively recent disease from what is known about the disease, little is known about it, but it is admitted that it is older than AIDS and it is a slow and asymptomatic developmental pathology, always gone unnoticed in the eyes of science. Thus, new policies that are emerging in an innovative and pioneering way by the State of Bahia are being constructed with the perspective of avoiding and preventing the transmission of HTLV-I and II in the population, as well as avoiding vertical transmission.

CONCLUSION

Although low in the urban population in general, the prevalence of HTLV infection is endemic, but varies between groups that are

particularly distinct, either because of their ethnic origin (Indians and blacks) or because of behavioral factors - injecting drug users (IDU), number of sexual partners, or even among individuals undergoing risky clinical procedures (blood and organ reception and hemodialysis).

The availability of the HTLV-I and II test for relatives of infected individuals; the introduction of this prenatal test and the counseling and follow-up of those infected at referral centers are necessary to prevent the spread of HTLV along with blood donor screening. With the improvement in the quality of the diagnosis and with measures to raise the awareness of the population about its importance, Brazil could become a reference country fighting against this virus.

From the analysis of the empirical material of this study, it is recognized that nurses are poorly educated during the undergraduate program regarding HTLV, and some have not had training, course and/or capacity, since it is something new in the reality of these professionals, as well as in the routine of municipalities like Juazeiro-BA. Therefore, it is understood that pregnant women before, during and after delivery should be stimulated regarding the importance and performance of anti-HTLV, and in the case of seropositive women, encourage self-care to avoid breastfeeding, preventing vertical transmission from mother to child. Regarding the orientation of non-breastfeeding, it was presented in the reports that this position has already been implemented and accompanied by measures to guarantee the distribution of artificial milk.

Public prevention policies should still occupy a relevant place with health promotion, building and developing specific strategies and technologies, fine-tuned with health care that incorporate interdisciplinary dialogues in the scenes of the practical area to act in testing and counseling, risk reduction, safer sex practices and harm reduction, among others.

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