

# WHAT IS HTLV?

*Habib Seyedzadeh, UK NEQAS, 03.06.2014*

- \* BMJ. Jan 8, 2000; 320(7227): 92–93.
- \* **Prevalence of antibody to human T cell leukaemia/lymphoma virus in women attending antenatal clinic in southeast London: retrospective study**
- \* [Matthew Donati, specialist registrar in virology](#),[a Habib Seyedzadeh, grade 1 medical laboratory scientific officer](#),[a Teresa Leung, grade 2 medical laboratory scientific officer](#),[a Maggie Blott, consultant obstetrician and gynaecologist](#),[b and Mark Zuckerman, consultant virologist](#)

# What is HTLV and where is it found?

- \* HTLV stands for Human T cell lymphotropic virus, as it infects a type of white blood cell called a T-cell or T-lymphocyte.
- \* There are four types of HTLV but only two, HTLV-I and HTLV-II, are significantly associated with diseases.
- \* Belong to the retroviruses family
- \* HTLV-I is endemic (common) in the Caribbean, Japan, South America, and parts of Africa.
- \* HTLV-II is found among native Americans.

# Who gets HTLV?

## How do they get it?

- \* In UK HTLV-I is mainly found among people who originated from endemic areas and their families/sexual partners.
- \* HTLV-II is not very common in UK, and is found mainly, but not exclusively among injecting drug users.
- \* HTLV-I and II can be transmitted from person to person in the following four ways.
  - From an infected mother to her baby.
  - Between sexual partners through unprotected intercourse.
  - Through transfused blood from an HTLV infected donor.
  - Through the sharing or re-use of needles and syringes to inject drugs.
- \* HTLV infection is not passed from person to person by coughing, sneezing, kissing, cuddling or daily social contact.

# How do you know that you are infected with HTLV?

- \* Most people who are infected with HTLV are unaware of their infection as they are perfectly well.
- \* These people are known as 'asymptomatic carriers'.
- \* HTLVI/II infection can be detected by a blood test which detects specific Ab.
- \* Infection with HTLV is lifelong, so the presence of HTLVI/II antibodies shows that someone is infected

# Does HTLV cause any disease?

- \* The majority of people infected with HTLV do not develop any related disease.
- \* About 1 in 20 of these infected, will develop disease due to HTLV infection and this usually occurs after several decades of infection.
- \* There are two main types of disease caused by HTLV-I:
  - Adult T-cell leukaemia/lymphoma (ATLL): this is a rare form of cancer of the blood.
  - HTLV-I-associated myelopathy (HAM): this is also known as tropical spastic paraparesis (TSP).

# Does HTLV cause any disease?

Tropical Spastic Paraparesis: is an inflammation of the nerves in the spinal cord that causes stiffness and weakness of the legs, backache, a 'weak' bladder and constipation.

Not all of these symptoms will be present, particularly at the beginning.

- \* HTLV-I may also cause inflammation of the eye (uveitis), joints (arthritis), muscles (myositis), lung (alveolitis) and skin (dermatitis).

These conditions are less common than ATLL and HAM/TSP.

- \* HTLV-II is mostly associated with similar neurological disorders.

# Can HTLV infection and related diseases be treated?

- \* At present there is no treatment to eradicate HTLV infection from someone's body once infected.
- \* ATLL is usually treated with anti-cancer drugs, but recently transferring to anti-viral treatment after starting with anti-cancer treatment has been shown to improve the outcome (median survival 2 years).
- \* HAM/TSP: There are different medicines to help with neurological symptoms but no cure. Patients become progressively disabled within ten years of onset.

# How can you protect yourself and others against HTLV?

- \* HTLV is passed on via body fluids (blood, semen, vaginal fluids, breast milk) from an infected person.
- \* Patients determined to be HTLV antibody positive should be instructed to prevent transmission to others:
  - \* Use of condoms
  - \* Avoid needle sharing
  - \* No blood or tissue donation
  - \* Discourage breastfeeding