

Case Study: What Is the Risk of T-Cell NHL for a Woman Who Has Had HTLV-1 Since 1998?

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CASE REPORT

Aggressive lymphoma and neurologic impairment have both been linked to HTLV-1. The retrovirus that causes adult human T-cell leukemia/lymphoma is called the Human T-cell Leukemia Virus Type 1.

Adult T-cell leukemia/lymphoma is hypothesized to be caused by dysregulated T-cell proliferation following HTLV-1 infection.

Japan, some South Pacific islands, the Caribbean, and central Africa are home to the endemic strain of HTLV-1. It can be transmitted sexually, through contaminated needles or blood transfusions, and vertically through breast milk. What is the likelihood of developing lymphoma in a patient who already has HTLV-1 neuropathy and signs of HTLV-1?

On 2/26/2014, the 55-year-old patient presented to Hematology with symptoms of anemia, leukocytosis, and thrombocytosis. It was determined that she had an HTLV-1 infection in 1998 when she initially experienced reduced

weakness in the extremities. Since then, her weakness has gotten worse, leaving her basically bedridden. She suffered pneumonia caused by Streptococcus group F more recently. Additionally, she was admitted to the hospital for airway blockage, for which beta agonists and corticosteroids were breathed. She had weakness in both her upper and lower limbs at the time of consultation, but she had no new complaints. Her assessment revealed that the woman was not in any immediate danger, but that her lower limbs were more weak.

in the higher extremities. She was aware of the time, place, and people around her. The results of the abdominal, cardiovascular, lung, and neurological exams were all normal. The only aberrant laboratory results were included in her total blood count. The mean corpuscular volume was 87.5 femtoliter, the mean corpuscular hemoglobin concentration was 29.1 grams/deciliter, the hemoglobin concentration was 7.7 grams/liter low, and the white blood count was 15.6 x 10 to the 9th/liter high. Low, 17.8 High, platelets 473 x 10⁹/liter, red cell distribution width The hemoglobin dropped to 6.0 grams per liter later in the hospitalization. Her blood film displayed a mixture of normal red blood cells along with a secondary hypochromic, microcytic population; the white blood cells were primarily composed of hyper-segmented, mildly toxic neutrophils; the platelets were normal.

segmented; the platelets had a typical size and form but had grown in quantity. No explosions were observed. We proposed that the reason for her anemia and reactive thrombocytosis was a dietary insufficiency. Levels of B12, folate, and iron/total iron binding capacity were recommended for follow-up.

The reason this patient possesses HTLV-1 is unknown. She never used injectable medications, has no family history, and has never been to Japan. She may be connected because of her myopathy. The only other long-term illness she has is hypertension, which had been effectively managed.

The first retrovirus to be identified was HTLV-1, which was first found in Japan in 1977. At the National Cancer Institute, Robert Gallo et al. made the initial isolation of the virus in 1971 [1]. Its existence is linked to adult T-cell lymphoma, uveitis, and myelopathy [2]. This patient did not appear to have lymphoma, in our opinion. In patients with HTLV-1, T-cell NHL is associated with a 2-5% risk.

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