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Case Report

Case Report: A Woman with HTLV-1 Since 1998, What is Her Risk for T-Cell NHL?

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HTLV-1 has been reported to cause both neurologic damage, and aggressive Lymphoma. Human T-cell Leukemia virus Type 1 is a retrovirus that causes human adult T-cell leukemia/lymphoma. Infection by HTLV-1 is thought to cause dysregulated T-cell proliferation, which in turn leads to adult T-cell leukemia/lymphoma. HLTV-1 is endemic in Japan, other Islands in the South Pacific, the Caribbean, and central Africa. It is spread by multiple routes: sexually, by contaminated blood transfusion, contaminated needles, and vertically through maternal milk. What is the risk of Lymphoma, in a patient who already has both evidence for HTLV-1 and HTLV-1 Neuropathy?

This 55 year old patient was consulted to Hematology on 2/26/2014 for anemia, leukocytosis, and thrombocytosis. Her diagnosis of HTLV-1 infection was made in 1998, when she first developed lower extremity weakness. Her weakness has since worsened, making her essentially bed bound. More recently, she had Streptococcus group F pneumonia. She also had a hospital admission for airway obstruction, treated with inhaled Corticosteroids and Beta agonists. At the time of consultation, she had both upper and lower limb weakness, but no new complaints. Her examination demonstrated a woman in no acute distress, with weakness worse in her lower limbs, but also noted in the upper limbs. She was alert, and oriented to person, place, and date. The rest of the neurologic, lung, cardio-vascular, and abdominal exam were normal. The only lab evaluations which were abnormal were in her Complete Blood Count. The White Blood Count was 15.6 x 10 to the 9^{th}/liter High, Hemoglobin 7.7grams/liter Low, Hematocrit 26.5 v/v Low, Mean Corpuscular Volume 87.5 femto-liter, Mean Corpuscular Hemoglobin Concentration 29.1grams/deciliter Low, red cell distribution width 17.8 High, Platelets 473 x 10^9/liter High, Later in the admission, the Hemoglobin fell to 6.0grams/liter. Her blood film showed a mix of normal red blood cells, with a secondary hypochromic, microcytic population; the White Blood Cells consisted mainly of slightly toxic neutrophils , some were hyper-segmented; platelets were normal in size and shape, but increased in number. No blasts were seen. We suggested a nutritional deficiency as the cause for her anemia and reactive thrombocytosis. Iron/Total Iron binding Capacity, B12 and Folate levels were suggested in follow–up.

It is unclear why this patient has HTLV-1. There is no family history, she never used injected drugs, or traveled to Japan. She has myopathy that could be related. Her only other chronic condition is Hypertension, which was well controlled.

HTLV-1 was the first retrovirus discovered, initially in Japan in 1977. The virus was first isolated by Robert Gallo, et al, at the National Cancer Institute in 1971 [1]. Its presence is associated with myelopathy, uveitis, and adult T-cell Lymphoma [2]. We did not feel that this patient had Lymphoma. The risk for T-cell NHL in patients with HTLV-1 is 2-5%.

References

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