

ALL CD4s THAT FLITTER DO NOT FOLD

To the Editor: In South Africa the prevalence of HIV infection is around 14%¹ with over 6 million infections. Health care workers as well as the public tend to blame HIV infection for a variety of ills. Any individual who is suffering from recurrent infections or loses weight is suspected of being infected. However, the protocol for diagnosis of HIV in adults is that a specific diagnostic test must be done and confirmed before informing the patient of the diagnosis.

Gauteng has about 1.5 million infections, accounting for about 23% of all South African infections.¹ The national antiretroviral (ARV) rollout component of the Department of Health's Comprehensive Plan started in this province in April 2004. One of the sites, situated at Helen Joseph Hospital in Johannesburg, is up and running with over 2 000 patients enrolled on its programme to date. HIV-positive patients are referred to the ARV clinic for initiation of treatment from a number of sources, including the antenatal clinics, self-referrals and private practitioners, but mainly from the hospital itself. After the patients have attended a wellness programme explaining basic HIV knowledge, a CD4 count is done. Those who need ARVs are then asked to attend a session on adherence, followed by an appointment with the doctor. Ill patients, those with very low CD4 counts and pregnant women are 'fast-tracked' through the process.

In October 2004, a 32-year-old woman was referred to us from the hospital after having had two admissions. She had a CD4 count of 75 cells/ μ l (normal > 600), with a percentage of 20.1%. This indicates lymphopenia and not specifically a decrease in the CD4 subset. She had been admitted with symptoms of weakness and dyspnoea and had been given a transfusion. She had no rash or joint pains, and had been discharged on prednisone 30 mg/d. She stated that she had been tested for HIV at the last admission.

In checking her results, we confirmed that she had been admitted in January 2004 with a haemoglobin concentration of 5.3 g/dl with normal red cell indices. The peripheral smear showed autoagglutination, spherocytes, diffuse basophilia and occasional nucleated red blood cells. The reticulocyte production index was normal, indicating an adequate marrow response. A bone marrow aspirate and trephine showed a hypercellular marrow primarily due to erythroid hyperplasia. She had a positive direct Coombs test. Other evidence of haemolysis was a lowered haptoglobin and an increased lactate dehydrogenase. She was transfused with two units of packed cells. She was readmitted in July 2004 with a similar picture, and at this admission autoimmune tests were done. Her antinuclear antibody was positive with a titre of 1 in 320 with a speckled pattern. She therefore had features of active haemolysis with some autoimmune features.

In her outpatient notes the next month a medical officer wrote a diagnosis of RVD (retroviral disease) and autoimmune haemolytic anaemia. She was then referred to our clinic.

As there was no record of her HIV test result we conducted a rapid test, confirmed by a laboratory enzyme-linked immunosorbent assay. Both the tests were negative.

As an addendum, I told the patient that she did not have HIV but an autoimmune condition. She asked me if there was a cure for this new disease. When I answered in the negative, she said, 'What is the difference, I still have an incurable illness.'

A CD4 cell count repeated in November 2004 was 602 cells/ μ l with a percentage of 22.1.

Even in a country with a high HIV incidence and prevalence, it is important to follow normal practice and confirm the diagnosis. A CD4+ count is a surrogate marker and does not confirm the diagnosis. Most low CD4 counts in South Africa are due to HIV infection, but there are other possibilities. These include infection with HIV-2, HTLV-1, HTLV-2 or other mononuclear trophic viruses and idiopathic CD4 T-cell lymphopenia, as well as autoimmune conditions.²

A parallel situation is that a raised carcinoembryonic antigen level does not confirm the diagnosis of a bowel malignancy but is a surrogate marker. The diagnosis of a malignancy is a histological one.

This is the second time an underlying autoimmune condition has been misdiagnosed as HIV infection in our clinic. An ill-appearing, wasted patient with an extensive skin rash was referred to us after having been started on ARVs in Northern Province 3 months earlier. She was not improving so was sent to us for other investigations. She was HIV negative and was subsequently diagnosed with systemic lupus erythematosus. I was also asked to start an emaciated patient on ARVs by his family after he was diagnosed with TB. He also was HIV negative and has done well on TB treatment. We have heard of other anecdotal cases of HIV-negative patients being started on ARVs because they fit the 'typical' AIDS profile.

Doctors should not become lazy in making a diagnosis. A rapid HIV test should be done to confirm the diagnosis if there is any doubt at the point of care.

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1. HIV/AIDS profile in the province of South Africa, Indicators for 2002. <http://www.mrc.ac.za/bod/AIDSindicators2002.pdf>

2. Kasper DL, Braunwald E, Fauci AS, eds. *Harrison's Principles of Internal Medicine*. 16th ed. New York: McGraw-Hill, 2005.

