MEDICAL IMAGERY

Reactivation of Chagas disease with central nervous system involvement: peripheral blood smear evidence

Figure 1  A, B, C: typical 'C' and 'S' trypomastigote forms (arrows); D: structural detail of the nucleus (N) and kinetoplast (K) of Trypanosoma cruzi.
In September 2008, a 35-year-old Argentinean man was admitted to hospital with fever and disorientation. A contrast computed tomography scan and magnetic resonance imaging showed two intracranial abscesses. The patient was treated initially with ceftriaxone, but over the course of two weeks of treatment his condition gradually worsened. Approximately two weeks after starting treatment, a Giemsa-stained blood smear was performed in our department, and four Trypanosoma cruzi-like parasites were observed with a ×100 oil-immersion objective lens (Figure 1). Subsequently, to establish the confirmatory diagnosis of T. cruzi infection, two immunoserological tests (complement fixation test, CFT) were carried out in our patient, and the diagnosis was positive. One day after our observation, HIV-1 (CDC stage C3) infection was confirmed, and a stereotactic brain biopsy of the frontal abscess showed the presence of the parasites in the central nervous system (CNS).

In Latin America, one of the most important endemic protozoonoses is Chagas disease, caused by the protozoan parasite T. cruzi. Economic hardship, political problems, or both, have spurred migration from Chagas endemic countries to developed countries. The main destinations of this immigration are Australia, Canada, Spain, and the USA. Recent reports in the literature have provided evidence for reactivation of some protozoonoses in patients infected with HIV. A great number of chagasic patients are now migrating from rural zones to the large cities where the possibility of acquiring HIV is greater. Cases of Chagas disease—AIDS co-infection with CNS involvement have been reported in the literature, although cerebral lesions have only rarely been observed in chronic chagasic immunocompetent patients. To date, around 50 cases of CNS involvement in the association of Chagas disease—AIDS are known and have been reported at scientific meetings.1–3 Our case shows a very unusual clinical picture of an HIV—T. cruzi co-infection with CNS involvement.

Conflict of interest: No conflict of interest to declare.

References


José Verdú*, Francisco De Paz, Vanessa Castaño, Diego Torrus, Sergio Reus

*Department of Hematology, General University Hospital, Alicante, Spain

Department of Internal Medicine, General University Hospital, Alicante, Spain

*Corresponding author
E-mail address: pepever2@mixmail.com

Corresponding Editor: William Cameron, Ottawa, Canada