Correspondence

Concern regarding the differential diagnosis of leishmaniasis

To the Editor

We comment on the problems faced by Niscola et al[1] during a specific diagnosis of leishmaniasis in patients with hematological malignancies. Rather than a serological test like direct agglutination and anti-K39 antibody, an in-vitro culture, and/or polymerase chain reaction (PCR) might be required to establish leishmaniasis diagnosis in those with a concurrent HIV infection. Serology would generally be expected to be negative or borderline due to the frequent occurrence of humoral immunity imbalances.[2] Recently, just one of the 79 confirmed HIV/AIDS cases in Ankara was serologically positive for leishmania during their fast agglutination screening or direct agglutination test or indirect immunofluorescent antibody test.[3] The bone marrow aspirates and trephine biopsies from similar enigmatic cases would merit their culture for demonstration of leishmania employing a biphasic medium using Novy-MacNeal-Nicolle (NNN) medium and defibrinated rabbit blood. Recently, promastigotes were seen during cultivation of skin aspirates of in 53 of 76 patients with cutaneous leishmaniasis (CL) in Brazil.[4] Last but not least, suitability of quantitative nucleic acid sequence-based amplification (QT-NASBA), quantitative real-time reverse transcriptase PCR (qRT-PCR), and quantitative real-time PCR (qPCR) for a leishmania diagnosis with patient samples has been encouraging:[5] an obvious option towards leishmania diagnosis in hematological disorders.

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Reply from the Author

The comment of Dr. Arya and Dr. Agarwal on our paper[1] address some important issues and raise some important concerns regarding the diagnosis of leishmaniasis in patients with hematological features resembling a malignant blood disease and a concurrent HIV infection. We completely agree with the observation expressed by our colleagues; indeed, in the setting of HIV infection, which may present with some hematological features resembling some blood-related neoplasm,[6] the diagnosis of leishmaniasis should rely on an in-vitro culture and/or PCR rather than a serological test like direct agglutination and anti-K39 antibody, for which the diagnostic value is limited by the decreased antibody production observed in most patients.[7] However, in the setting of HIV-negative and immunocompetent patients, serological tests can be an optimal and reliable tool; moreover, we described the hyperimmune humoral response, expressed by an important polyclonal hypergammaglobulinemia presented by our patients. In addition, bone marrow trephine biopsies allowed for a morphologic diagnosis that was then confirmed by serological tests in 3 (50%) out 6 cases; in the remaining cases, the diagnosis was achieved by serological tests, after that a hematological malignancy and other possibly related underlying disorders were excluded by careful evaluation.

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