Enzyme-Linked Immunosorbent Assays for Diagnosis of Leishmaniasis in Patients Coinfected with Human Immunodeficiency Virus

In a recent issue of the *Journal of Clinical Microbiology*, Ryan et al. (6) reported antileishmanial serologic data based on soluble antigens from promastigotes cultivated in a protein-free medium. Using the enzyme-linked immunosorbent assay (ELISA), it was possible to detect immunoglobulin M (IgM) and IgG antibody in patients with cutaneous leishmaniasis (143 sera) and visceral leishmaniasis (129 sera). Unfortunately, there were no details about a concurrent human immunodeficiency virus (HIV) serologic profile among those screened for leishmanial IgM and IgG. Emerging leishmania-HIV coinfections are rapidly emerging in Africa (7). A coinfection with HIV could affect the excellent test sensitivity of 95% recorded by Ryan et al. (6). Furthermore, *Leishmania* has been found in syringes discarded by intravenous drug users (1).

During a 24-year period in Spain, among 120 cases of visceral leishmaniasis, there were 80 cases associated with HIV infection (4). The sensitivity of serologic studies was significantly lower in HIV-infected than in non-HIV-infected patients: 50% versus 80% ($P < 0.001$). Nevertheless, the diagnostic yields of bone marrow aspirates were similar in the two groups. Furthermore, it would be worthwhile to investigate the utility of ELISA for samples from children who had been perinatally infected with HIV. For such a child with visceral leishmaniasis in Brazil, the diagnosis was made by the demonstration of amastigote forms of *Leishmania* in bone marrow aspirate (2).

The utility of promastigote soluble-antigen-based ELISA in a serologic diagnosis of cutaneous leishmaniasis (6) is intriguing. Prospective investigations would be essential to ascertain its utility for those coinfecting with HIV. Disseminated cutaneous leishmaniasis was described for one case of HIV in Israel (3). In Brazil, a case of generalized cutaneous leishmaniasis in a patient with AIDS was paradoxical. The cutaneous lesions resembled anergic leishmaniasis caused by *Leishmania*

amazonensis and Jorgo Lobo's disease, but the Montenegro test was positive (5).

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Subhash C Arya*

Centre for Logistical Research
and Innovation
M-122 Greater Kailash-Part 2
New Delhi-110048
India

*E-mail: subhashji@hotmail.com

Ed. Note: The authors of the published article did not respond.