An HIV-Positive Man with Tattoo Induration
(See pages 220–1 for the Photo Quiz)

Diagnosis: visceral leishmaniasis with cutaneous tattoo infiltration in an HIV-positive patient.

Leishmaniasis is a zoonotic disease, endemic in some areas of Spain, that can be incidentally transmitted to humans by a sandfly bite. Mammals, such as rodents and dogs, are the major source of infection for the vector [1]. In visceral leishmaniasis, cutaneous affectation can occur as solitary or multiple lesions, especially in HIV-positive patients [2]. In the present case, visceral leishmaniasis had been diagnosed 7 years previously on the basis of hepatosplenomegaly and visualization of the parasite in a bone marrow biopsy specimen. The patient had experienced multiple relapses in previous years, with visceral and cutaneous involvement; however, this was the first time that the tattoos were involved (figures 1 and 2). The patient had received multiple cycles of treatment with glucantime, pentamidine, and liposomal amphotericin B. On presentation to our hospital, the patient was treated with intramuscular glucantime, with partial response of the cutaneous lesions and disappearance of fever.

The tropism of Leishmania for preexisting cutaneous lesions has been previously reported in cases involving dermatofibroma [3], fibrous histiocytoma [4], and Kaposi sarcoma [5–9]. To our knowledge, only 1 previous case of mild tattoo tropism has been described [4]. After the bite of an infected sandfly, Leishmania are taken up by dendritic cells and macrophages in subcutaneous tissue. The parasites divide in these cells, and the released amastigotes circulate or are carried by infected cells to new areas of the body (mainly to the reticuloendothelial system), where quiescent macrophages again become infected [1, 10]. Tattooed skin is a tissue rich in pigment-containing macrophages [11]. This may explain the tropism of these microorganisms for our patient’s tattooed skin (figure 3). Leishmaniasis should be considered in HIV-positive patients who have alterations in the appearance of their tattoos.
Figure 3. Microscopic examination of the skin biopsy sample showing histiocytes with Leishmania (arrow) and pigment (arrowhead).

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