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CLINICAL IMAGE

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Key Clinical Message

We report a case of a 5-year-old female, resident of Afghanistan, who presented with fever and massive splenomegaly. Bone marrow revealed *Leishmania donovani* bodies (LD bodies) in macrophages characterized by a kinetoplast and characteristic double dot appearance. She was diagnosed as visceral leishmaniasis which is transmitted by sandflies (*Phlebotomus*).

Keywords

Leishmania donovani bodies, *Phlebotomus*, sandflies, visceral leishmaniasis.

Dear Editor,

We report a case of a 5-year-old female, resident of Afghanistan who was evaluated for high grade, intermittent fevers over the last 5 months. On examination, she had pallor and massive splenomegaly. Complete blood count results showed hemoglobin: 7.6 g/dL, white blood cell count: 2.3 × 109/L, and platelet count: 70 × 109/L. The peripheral blood smear revealed anisocytosis, polychromasia and pancytopenia. Subsequently, bone marrow procedure was performed as a part of workup for evaluation of fever and splenomegaly. Bone marrow aspirate showed *Leishmania donovani* bodies (LD bodies) in macrophages characterized by a kinetoplast and characteristic double dot appearance (Fig. 1A and B). Normal hematopoiesis was noted. A diagnosis visceral leishmaniasis was made.

Leishmaniasis is caused by a protozoan, *Leishmania*, of which more than 20 species have been identified. *Leishmania* is transmitted by sandflies (*Phlebotomus*). It has an estimated annual incidence of 2 million cases in 98 countries [1] It manifests itself as three main clinical

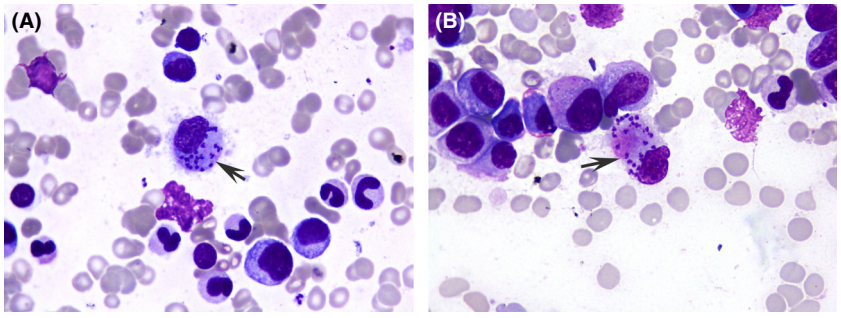

Figure 1. (A and B) macrophage infested with intracellular *Leishmania donovani* bodies (arrows) characterized by a kinetoplast and characteristic double dot appearance (Leishman stain) (100× magnification).

syndromes: cutaneous, mucocutaneous, and visceral disease. Visceral leishmaniasis (kala-azar) occurs due to infestation of the macrophages in the reticuloendothelial system resulting in hepatosplenomegaly, while involvement of bone marrow leads to suppression of hemopoiesis. In countries like India, Pakistan, and China, visceral Leishmaniasis is caused by *Leishmania donovani*. In the Mediterranean region, *Leishmania infantum* is the culprit and *Leishmania tropica* is reported to be the causative agent in the Middle East [2]. Management includes amphotericin B, sodium stiboguconate or miltefosine [3–5].

Conflict of Interest

None declared.

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