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Case Report

Visceral Leishmaniasis Associated with Chronic Lymphoid Leukemia: About a Case

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Abstract: Visceral leishmaniasis may be considered as a rare opportunistic infection in adult with chronic lymphocytic leukemia. We report the second case in the world and the first one in Morocco. It is about a 70-year-old patient, with chronic lymphocytic leukemia treated with chemotherapy. He presented fever, splenomegaly and axillary adenopathy. The blood count showed persistent pancytopenia. The bone marrow aspiration showed the presence of Leishman's bodies. The patient was lost to follow-up.
Keywords: visceral leishmaniasis, chronic lymphocytic leukemia, immunosuppression.

INTRODUCTION

Leishmaniasis is a vector-borne parasitic disease caused by flagellate protozoa of the genus Leishmania, transmitted to humans by a haematophagous vector called phlebotomus. The visceral form is considered to be the most severe form (the most common is cutaneous and mucocutaneous). It affects preferentially children, but adults are not spared especially immunosuppressed ones. We report the case of a patient with chronic lymphocytic leukemia (CLL) in whom we diagnosed visceral leishmaniasis (VL).

CASE REPORT

It is a 70-year-old woman with CLL treated by chemotherapy since 2010. She shows after 6 treatment courses a deep febrile pancytopenia associated with an abdominal volume increase. Clinical examination at admission found a patient in poor general condition, febrile at 39° C with splenomegaly extending beyond the umbilicus and axillary adenopathy. The biological investigations revealed a pancytopenia (normochromic and normocytic anemia; hemoglobin at 6g / l, thrombocytopenia 47000 / l and leukocytes at 4880 / µl with neutrophil at 270 / µl (5%)). The value of lymphocytes was 4160 / µl (85%). The bone marrow aspiration revealed the presence of extracellular Leishman bodies in the amastigote form figure (1,2,3). Thus, the diagnosis of visceral leishmaniasis was made, but the species diagnosis could not be made because the patient was lost to follow-up.

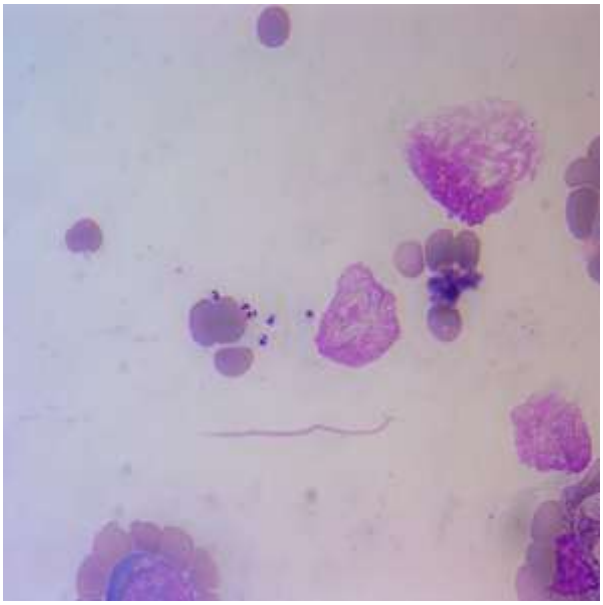

Fig-1: Leishman bodies in the amastigote form

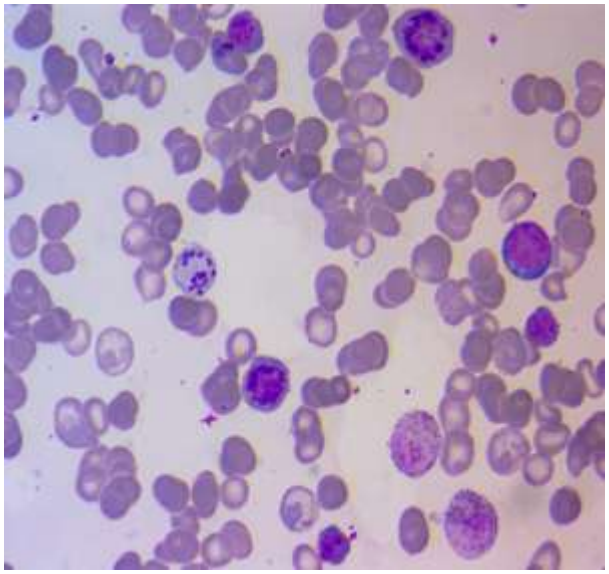

Fig-2: Leishman bodies in the amastigote form

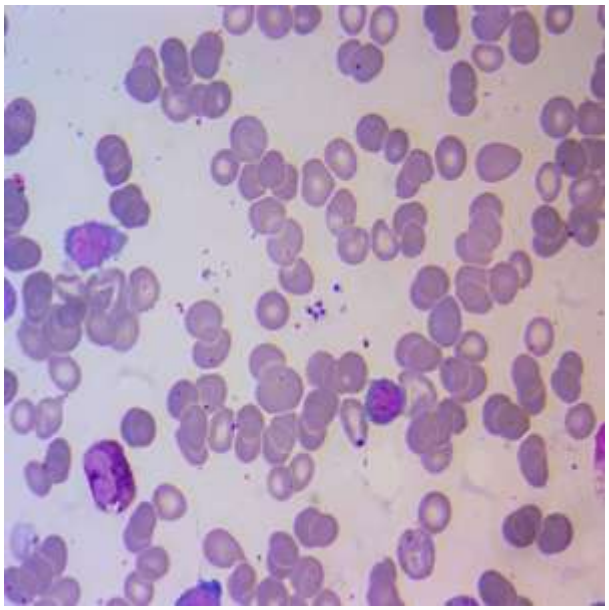

Fig-3: Leishman bodies in the amastigote form

COMMENTARY - DISCUSSION

Visceral leishmaniasis is an anthropozoonose caused by flagellate protozoa of the genus Leishmania infantum. It is transmitted by the bite of female phlebotome, a dipterous haematophagous insect [1, 2]. The global incidence is estimated at 500,000 cases / year with a wide geographical distribution [3, 4]. In Morocco a significant upsurge in recent years was observed. It is encountered usually in children related to the immune system's immaturity [3]. The adult is rarely contaminated, usually in a context of immunosuppression especially human immunodeficiency virus (HIV), but it is rare in cancer patients [56]. In malignant homeopathy, treatment-induced immunosuppression has rarely been reported as a risk factor for visceral Leishmaniasis [7]. The clinical picture may be asymptomatic or not very noisy. This combination complicates the management of the patient because leishmaniasis has a negative impact on macrophages and dendritic cells function and activation, which is responsible for the escape of cells from immune destruction. Apart from HIV, the literature reports cases of visceral leishmaniasis diagnosed in patients with hematologic malignancies: A case identical to our case was reported in Italy in Messina in 2011 in a 64-year-old man, in this patient Amphotericin B Liposomal eradicated the Leishman bodies of the bone marrow at the end of treatment [8]. An association between LV and acute lymphoblastic leukemia B was reported in Morocco in Fes in 2011 in a 12-year-old boy in whom Glucantime-based therapy induced deep thrombocytopenia, Treatment by amphtercin B wasn't possible because of a lack of adequate financial means. The child died as a result of a septic shock [9]. In 1983, a case of visceral leishmaniasis in post-chemotherapy of acute leukemia in a 15-year-old adolescent was reported by Aguado in Spain, where the progression under treatment was unfavorable [10]. A similar case was reported in Iran in 2008 by Fakhar in a 12-year-old girl who recovered under treatment [11]. Furthermore, in 2011, a case of LAL B occurring after treatment of visceral leishmaniasis in a 20-year-old adult was reported by Nafil in Marrakech, where the progression was marked by healing with concomitant LAL [12]. The biological diagnosis is based on the detection of leishman bodies on bone marrow aspiration, rK39 (immunochromatography) strips with 35% sensitivity, ELISA, direct haemagglutination (sensitive to 93.9% and specific to 85.9%) [4, 13, 14]. PCR detects parasitemias <1 parasites / ml with similar sensitivity of blood samples. PCR may also identify the species or even the parasitic strain [4, 15]. For treatment, Amphotericin B has become the most recommended drug for LV because of increasing resistance against pentavalent antimony. Relapses are rarely seen in immunocompetent patients as opposed to immunosuppressed patients [16].

CONCLUSION

The incidence of visceral leishmaniasis in Morocco is increasing. Diagnosis should be made and investigated in cases of febrile splenomegaly in an endemic country and in immunocompromised patients, in particular in the case of malignant hematology under chemotherapy which gives the same clinical picture.

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