Bone marrow cytomorphological changes in patients co-infected with visceral leishmaniasis and human immunodeficiency virus

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Visceral leishmaniasis (VL) is a severe systemic infectious disease.[1] It has been recognized as an opportunistic disease in patients infected with human immunodeficiency virus (HIV).[2,3] The analysis of the bone marrow of patients co-infected with VL and HIV showed dysplasia of erythroid, granulocytic and megakaryocytic lineages (Figure 1), besides the presence of plasmacytosis, cytoplasmic bodies, hemophagocytosis, granuloma and intracellular and extracellular leishmania amastigotes (Figure 2). These findings are found in the analysis of bone marrow of patients co-infected with HIV and VL; knowledge of these findings may be useful for the diagnosis and prognosis of patients.

Keywords: HIV infections; Bone marrow examination; Leishmaniasis, visceral; AIDS-related opportunistic infections

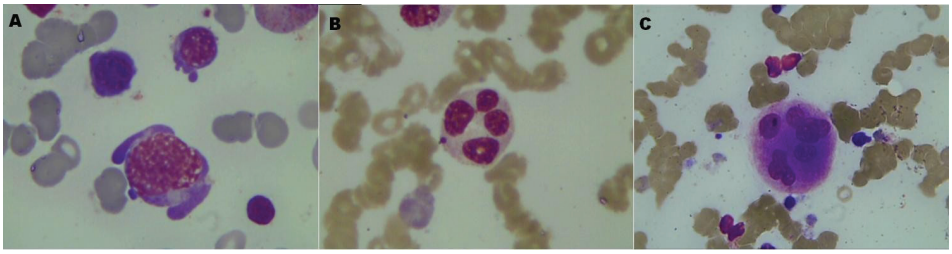

Figure 1 – Dysplastic changes in erythroid, granulocytic and megakaryocytic lineages in marrow aspirate of patients co-infected with visceral leishmaniasis and human immunodeficiency virus on Leishman stain (magnification: 1000x) (A) dyserythropoiesis; (B) dysgranulopoiesis; (C) dysmegakaryopoiesis

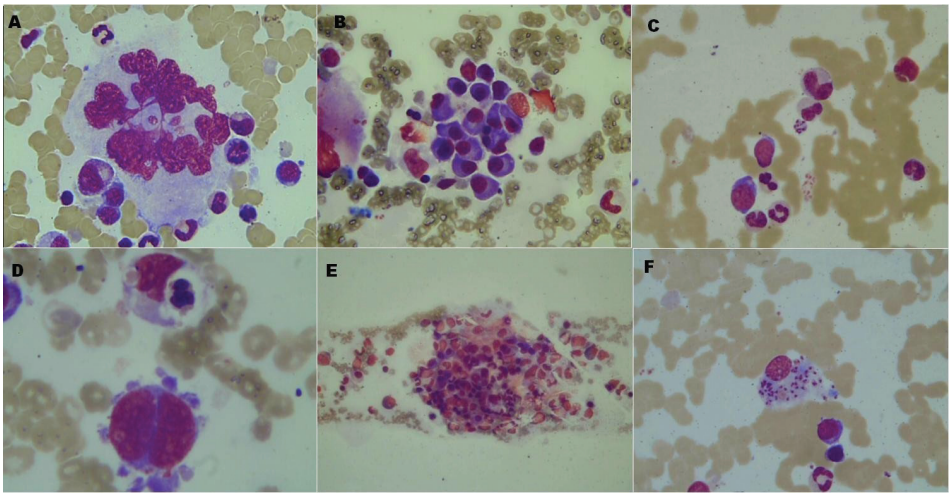

Figure 2 – Bone marrow cytomorphological changes in patients co-infected with visceral leishmaniasis and human immunodeficiency virus on Leishman stain (magnification: 1000x) (A) multiple lobulated megakaryocyte; (B) Plasmacytosis; (C) Cytoplasmic body – extracellular leishmania amastigotes; (D) Hemophagocytosis and dysmegakaryopoiesis; (E) Granuloma; (F) leishmania amastigotes phagocytosed by macrophages

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Conflict-of-interest disclosure:
The authors declare no competing financial interest

Submitted: 10/18/2011
Accepted: 10/21/2011

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DOI: 10.5581/1516-8484.20110129