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Images in Clinical Hematology

Mycobacterium leprae in bone marrow



Leonardo Rodrigues de Oliveira*, André Luiz Maltos

Universidade Federal do Triângulo Mineiro (UFTM), Uberaba, MG, Brazil

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The case of a 54-year-old man, who was referred to evaluate a consumptive syndrome with anemia and fever of unknown origin, is reported. A physical examination revealed madarosis, nodular lesions on the ears, nasal soft tissue collapse, subcutaneous nodules on arms and generalized lymphadenopathy. Laboratory tests showed anemia (Hb 8.8 g/dL, mean corpuscular volume 82.4 fL, mean corpuscular hemoglobin 24.5 pg), normal reticulocyte count (0.5%), thrombocytosis ($482 \times 10^9/L$), normal serum ferritin (268 ng/mL) and elevated C-reactive protein (124 mg/L). Serologies (viral hepatitis and human immunodeficiency virus) were non-reagent. Lepromatous leprosy was confirmed by staining for acid-fast bacilli using samples from the ear and subcutaneous nodules and bone marrow smears. Bone marrow was hypercellular with myeloid hyperplasia (myeloid-erythroid ratio 7:1) but without dysplasia. *Mycobacterium leprae* was detected lying free and in foamy histiocytes named Virchow cells (Figures 1 and 2).^{1,2} A multidrug therapeutic regimen (clofazimine, dapson, rifampicin) was established with progressive improvement.

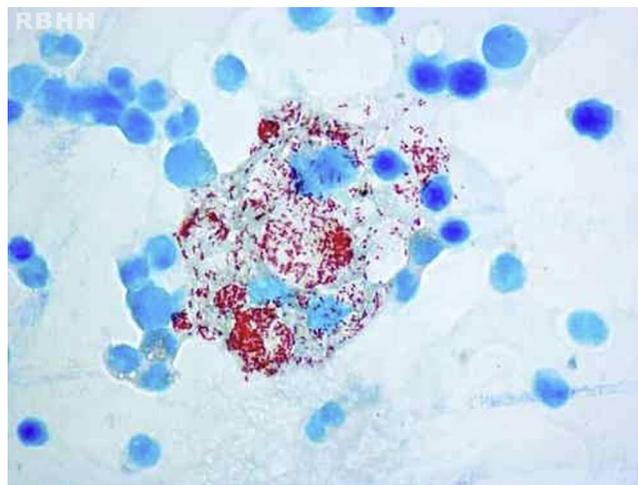


Figure 1 – Large cells (histiocytes) with their abundant cytoplasm filled with acid-fast bacilli (*Mycobacterium leprae*) in bone marrow (Ziehl-Neelsen stain) magnification 1000x.

* Corresponding author at: Universidade Federal do Triângulo Mineiro – UFTM, Central de Quimioterapia, Rua Getúlio Guarita, s/n, 38080-125 Uberaba, MG, Brazil.

E-mail address: leonardorodoli@hotmail.com (L.R. de Oliveira).

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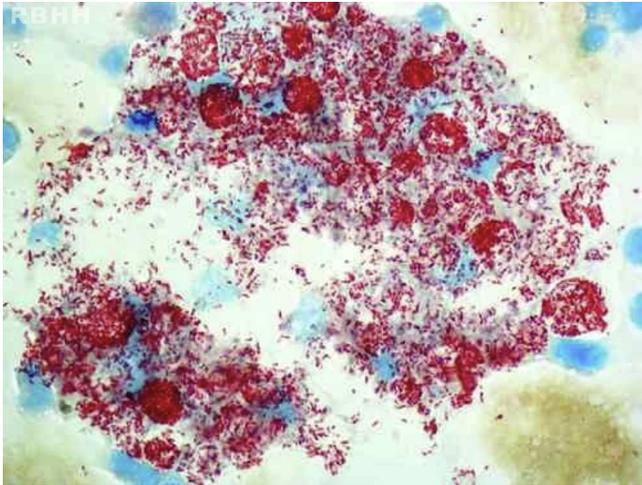


Figure 2 – Large cells (histiocytes) with their abundant cytoplasm filled with acid-fast bacilli (*Mycobacterium leprae*) in bone marrow (Fite-Faraco stain) magnification 1000 \times .

Conflicts of interest

The authors declare no conflicts of interest.

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