Images in Clinical Hematology

Mycobacterium leprae in bone marrow

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A R T I C L E   I N F O

Article history:
Received 4 March 2014
Accepted 17 March 2014
Available online 29 May 2014

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 × 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). A multidrug therapeutic regimen (clofazimine, dapsone, 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 1000×.

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http://dx.doi.org/10.1016/j.bjhh.2014.05.010
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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 1000x.

**Conflicts of interest**

The authors declare no conflicts of interest.

**References**