

Clinical Image

Disseminated Toxoplasmosis with Bone Marrow Involvement

Collin K Chin^{1,2} and Jill Finlayson^{1,3*}

¹PathWest Laboratory Medicine Australia

²Department of Hematology, Sir Charles Gairdner Hospital, Western Australia

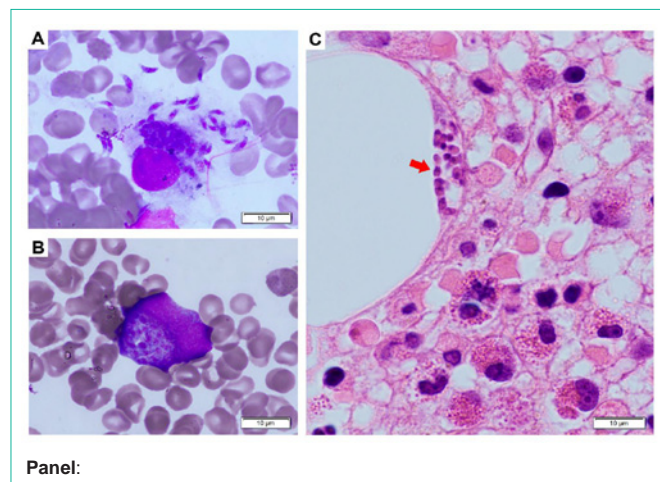
³University of Western Australia

*Corresponding author: Jill Finlayson, PathWest Laboratory Medicine, QEII Medical Centre, Nedlands, Western Australia

Received: November 08, 2018; Accepted: November 21, 2018; Published: November 28, 2018

Clinical Image

A 61-year-old man with acute lymphoblastic leukemia on maintenance oral mercaptopurine and methotrexate presented with confusion, night sweats and cough. Laboratory work-up showed pancytopenia with elevated inflammatory markers and liver enzymes. Computerized tomography showed trace pericardial fluid and small pleural effusions without evidence of infection. Broad-spectrum antimicrobial therapy was commenced and bone marrow (BM) biopsy was performed. The BM aspirate smear was hypocellular without evidence of haemophagocytosis or leukemic relapse. Examination demonstrated granulocytes with crescent-shaped intracellular inclusions with prominent oval nuclei (panels A/B, Giemsa stain). Trepine biopsy showed similar findings with



Panel:

increased eosinophilic activity (panel C, hematoxylin & eosin stain). Serology was positive for *Toxoplasma* immunoglobulin M and immunoglobulin G of 5.0IU/mL (positive >3.0IU/mL). Polymerase chain reaction and sequencing analyses were positive for *Toxoplasma gondii*. Human immunodeficiency virus serology was negative. The patient deteriorated within 48 hours due to cardiac tamponade from disseminated toxoplasmosis and subsequently died.