



Melanin inclusions in the neutrophils of a patient with metastatic melanoma.

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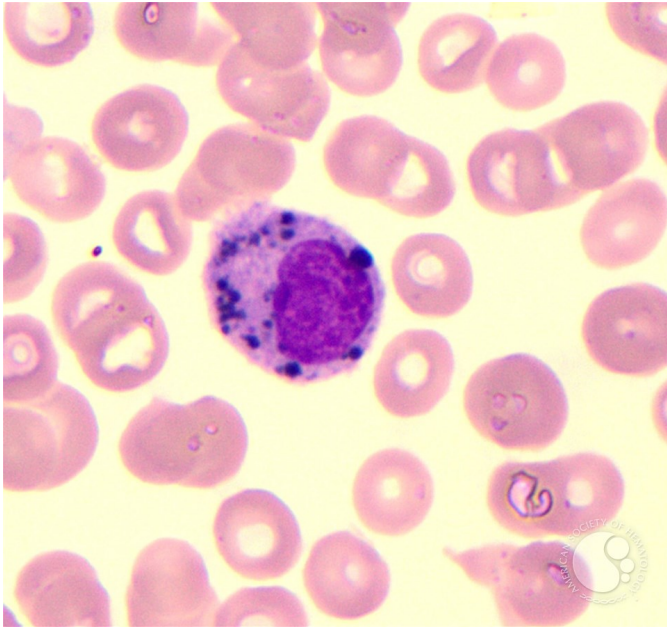
Category: Laboratory Hematology > Basic cell morphology > Morphologic variants of white blood cells > Phagocytosed material

Description: A 31 year old New Zealand Maori man who had fallen while taking a swing at golf two months previously, presented with persistent back pain radiating down the left leg. Since his fall, he had gradually developed dyspnoea on exertion and lethargy as well as weight loss, with night sweats and fever over the previous week. Physical examination revealed pallor, jaundice, cervical lymphadenopathy, hepato-splenomegaly and neurological signs in the left leg. The full blood count was leuco-erythroblastic with a haemoglobin of 46 g/L, MCV 91 fL, nucleated RBC 3.58, reticulocytes 111 x 10⁹/L, white cell count 14.3 x 10⁹/L, (myelocytes 0.4, neutrophils 9.6) and platelets 14 x 10⁹/L. A few neutrophils (approximately 3%) showed dark cytoplasmic inclusions of melanin. Liver function tests were abnormal (bilirubin 44 umol/L, AST 1054 U/L, ALT 529 U/L), serum fibrinogen 1.1g/L, APTT 117secs, LDH 8409 U/L, reduced serum haptoglobins, negative direct anti-globulin test, and serum ferritin >30,000 ug/L. Bone marrow biopsy and a fine needle aspiration of a left cervical lymph node were both diagnostic for disseminated melanotic malignant melanoma (cells +ve for Schmorl and S100 stains as well as the HMB45 antibody). Abdominal ultrasound and a MRI confirmed widespread metastases in his liver, spleen and spine. The primary melanoma site could not be identified. He was initially managed with transfusion therapy, moving to palliative care support. A literature review shows only a few case reports before the year 2000 of melanin inclusions in neutrophils of patients with metastatic malignant melanoma





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