

The peripheral smear IQ0941 was prepared from a 42 year-old lady presented with easy bruising and fever. A complete blood count showed: Hb 8.0 g/dL, RBC $2.57 \times 10^{12}/L$, Hct 0.229 L/L, MCV 89.1 fL, MCH 31.3 pg, WBC $4.8 \times 10^9/L$ and Platelet $27 \times 10^9/L$.

The peripheral blood film shows many circulating monoblasts being characteristics of relatively large size and moderately abundant basophilic cytoplasm with vacuolation and pseudopod formation (Figure 1). They display round to oval nuclei, fine chromatin and prominent nucleoli. Scattered azurophilic granules are also evident. Promonocytes with a more irregular and convoluted nuclear configuration are also present (Figure 2). Auer rods are rarely seen. The marrow aspirate is hypercellular and heavily infiltrated by monoblasts (90%). Immunophenotyping of blast cells by flow cytometry demonstrates the expression of CD4, CD11c, CD33 and cytoplasmic MPO. Cytochemically, the blasts show an intense non-specific esterase activity, which is sensitive to fluoride treatment. A diagnosis of acute monoblastic leukaemia is drawn.

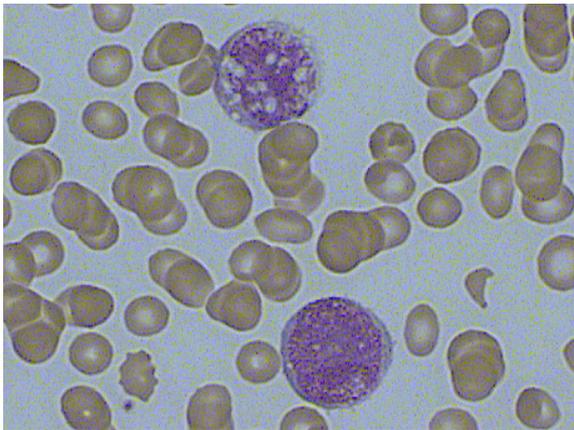


Figure 1. Monoblasts (x 100 magnification)

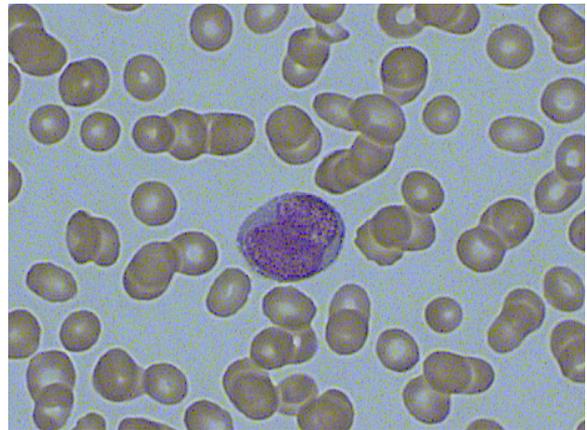


Figure 2. Promonocyte (x 100 magnification)