

Clinical Image

Septic Arthritis in a Patient with Acute Myeloid Leukemia

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A 65-year-old man who had been newly diagnosed with Acute Myeloid Leukemia (AML) presented to the department of hematology with a painful swelling of his right knee. At presentation the patient was afebrile and physical examination revealed a swollen and overheated right knee. Blood analysis showed pancytopenia with grade four neutropenia and elevation of C-reactive protein. Moreover, myeloid blasts (Panel A ◀) and hypolobated neutrophils (Pelger-Huët neutrophils) with reduced or missing granulation (Panel B') could be detected in the peripheral blood. X-ray-imaging of the right knee did only show early-stage arthrotic changes. On the suspicion of septic arthritis in the context of AML-induced immunosuppression the knee was punctured and 50 milliliters of turbid fluid was drained. The synovial fluid leukocyte count was 24400 per mm³. Microscopic examination showed an abundance of (dysplastic) neutrophils (*) with myeloid blasts (◀) interspersed in between (Panel C+D). Having confirmed the diagnosis of septic arthritis the patient was hospitalized and intravenous antibiotics were started (Figure 1).

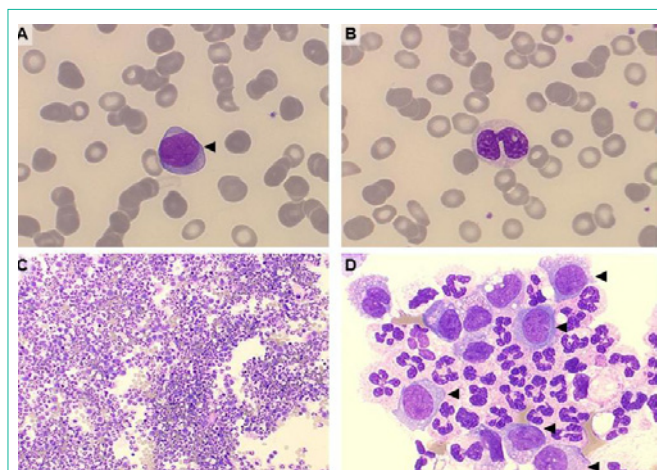


Figure 1: