

Clinical-Medical Image

Hemophagocytosis in Acute Myeloid Leukemia

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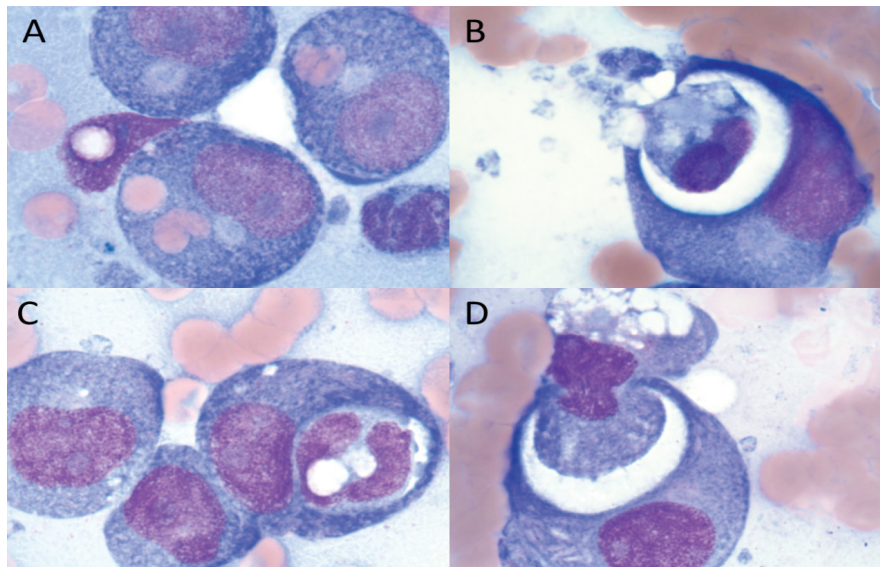


Figure 1: Blasts phagocytized red blood cells, other blasts, and monocytic cells.

Clinical Image

A 57-year-old man presented with pancytopenia (hemoglobin 7.3 g/dL; platelets 50 k/uL; and white blood cell count 2.32 k/uL). Bone marrow aspirate showed 23% monoblasts and 22% promonocytes with significant hemophagocytosis. Blasts phagocytized red blood cells, other blasts, and monocytic cells (Figure 1). The monoblasts had abundant cytoplasm and small granules. A few blasts were vacuolated. The blasts expressed CD4, CD11b, CD11c, CD33, and HLA-DR, along with variable CD14, CD117, and CD13 by flow cytometry. CD34 was negative. Cytogenetics showed t(8;16)(p11.2;p13.3) in all 20 cells. He was diagnosed with acute monocytic leukemia with t(8;16)(p11.2;p13.3). In cases demonstrating hemophagocytosis within blasts, the cytogeneticist should be alerted to check for this translocation as it can sometimes be difficult to detect. These patients frequently develop coagulopathy and have a poor prognosis.

Keywords: Acute myeloid leukemia; Bone marrow; Cytogenetics; Hemophagocytosis

Declaration of Interests

The authors declare that they have no competing interests.

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