



Blast crisis of Ph1-CML, with the prevalent features of malignant histiocytosis

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In hematology, morphological features (such as the May-Grünwald-Gimsa stain) often provide useful diagnostic indications which can then be complemented with cytochemical and/or immunological data, depending on the situation. Research into the histological archives sometimes brings to light cytological findings of considerable interest, as in the present study.

The case in question is on file in our historical archives and dates back to 1978. This accounts for the fact that no immunohistochemical or molecular cytogenetic tests were carried out. The traditional cytochemical tests included: Sudan black B, PAS, myeloperoxidase, acid phosphatase, naphthol

AS-D acetate esterase, naphthol AS-D chloroacetate esterase, alpha naphthyl butyrate esterase.

A 49-year old female with a history of Ph1-positive chronic myeloid leukemia (Ph1-CML) was admitted to our Institute in October 1978 having a pale coloring, petechiae of the mucosa and widespread ecchymoses. The patient was not feverish and showed no signs of adenomegaly or hepatosplenomegaly. Hematological findings were as follows: Hb 10.7 g/dL, platelet count $16 \times 10^9/L$, WBC $8 \times 10^9/L$, with neutrophils 52%, lymphocytes 20%, monocytes 3%, blasts 18%, myelocytes 5%, metamyelocytes 2%, nucleated red blood cells 24% WBC.

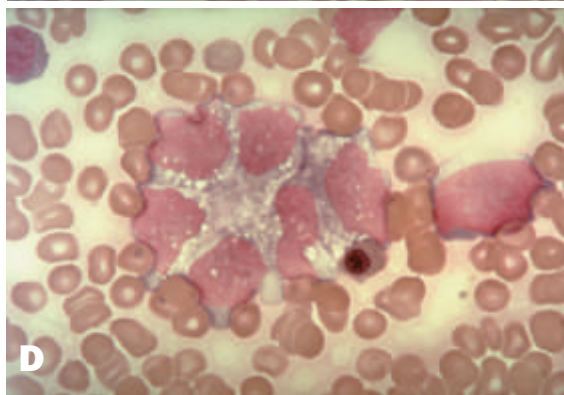
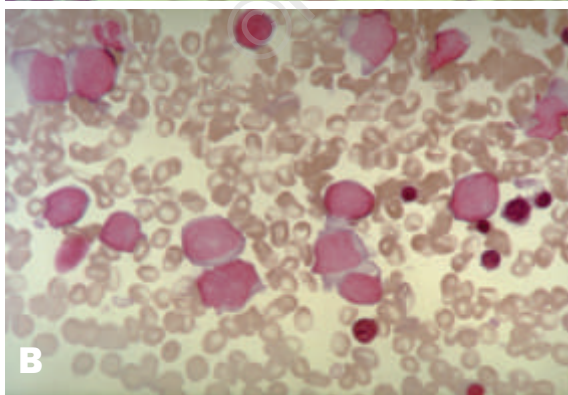
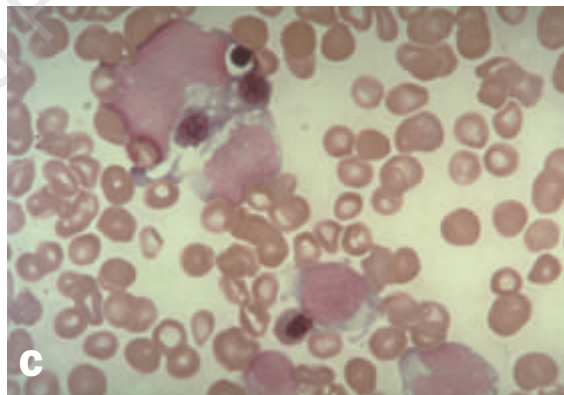
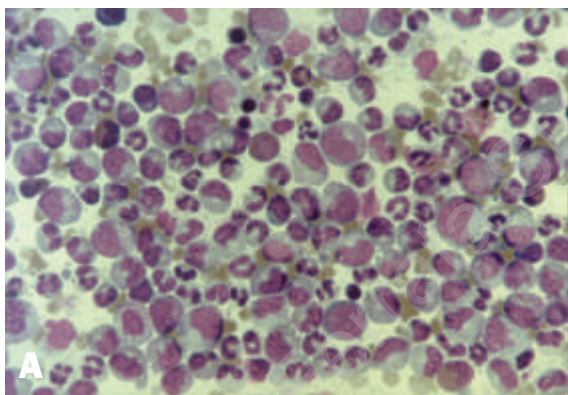


Figure 1. A) florid phase of CML (MGG stain; 400 \times); B) blast crisis of CML (MGG stain; 400 \times); C) blast crisis; blast cells and a large cell in transition from a blast cell to a macrophage in the process of phagocytizing erythroblasts (MGG stain; 600 \times); D) blast crisis; a cohesive aggregate of atypical macrophages (MGG stain; 600 \times).

Bone marrow examination revealed: "good overall cell density. Moderate reduction in erythro- and megakaryocytopoietic components. The granulocytopoietic line is still partly present and maturing, while there is an emerging population of large granular blast cells, some exhibiting hemophagocytic activity, and of extremely atypical elements of monoblastic and macrophagic morphology, again sometimes displaying hemophagocytic activity. The phase of the mature circulating monocyte appears to have been skipped. Therefore: blast crisis of CML evolving directly to malignant histiocytosis." (Figure 1a, b, c, d).

In conclusion, given the drastic re-evaluation of malignant histiocytosis as a recognised nosographic entity and its virtually complete reclassification under the heading of lymphoma with large anaplastic CD30⁺ cells with or without hemophagocytosis, cases like ours, which are of acknowledged myeloproliferative origin and with patently neoplastic ter-

минаl macrophagopoiesis,¹⁻³ seem to be among the few in which the term "malignant histiocytosis" still appears to be justified.

References

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