

Hypereosinophilia in acute lymphoblastic leukemia: an association to be remembered

A 18 year-old man, while asymptomatic, presented with marked eosinophilia. The blood count was the following: hemoglobin 14.2 g/L, leukocytes $19.0 \times 10^9/L$ with 40% eosinophils and platelets $350 \times 10^9/L$. On physical examination no liver or spleen enlargement was noted. Two months later hypereosinophilia increased to 85% and leukocytes were $36.0 \times 10^9/L$; an echotomography showed a mild splenomegaly. A diagnosis of myeloproliferative disorder with eosinophilic differentiation was considered and a treatment with alpha-interferon was started.

After a three months treatment, when the patient came to my observation, the hypereosinophilia was unmodified and a reassessment of the hematological disorder was needed. The bone marrow aspirate (Figure 1) showed a monomorphic lymphoblastic infiltration along with the presence of numerous hypogranular eosinophils (about 30% of the total cells); on immunophenotyping the lymphoid malignancy was defined as common-ALL with myeloid antigen; cytogenetic analyses showed a rearrangement of the short arms of chromosome 11, and RT PCR did not demonstrate any BCR-ABL rearrangement.

About twenty years ago Catovsky and I¹⁻³ highlighted the association between hypereosinophilia and common/T lymphoblastic leukemia or lymphoma. Such an event should be kept in mind as hypereosinophilia may mark the onset and the relapse of lymphoid malignancies.

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References

1. Bernasconi C., Brusamolino E., Castelli G. Eosinophilia in T-cell acute lymphoblastic leukemia. Abstract of the XVII Congress of the International Society of Hematology, Paris, 1978 p. 760.
2. Catovsky D., Hows J., Rees J.K.H., Galton D.A.G. Eosinophilia associated with lymphoblastic leukaemia or lymphoma. Abstracts of the XVII Congress of the International Society of Hematology, Paris, 1978 p. 251.
3. Catovsky D., Bernasconi C., Verdonck P.J. et al. The association of eosinophilia with lymphoblastic leukaemia or lymphoma: a study on seven patients. *Br J Haematol* 1980; 45: 523-534.

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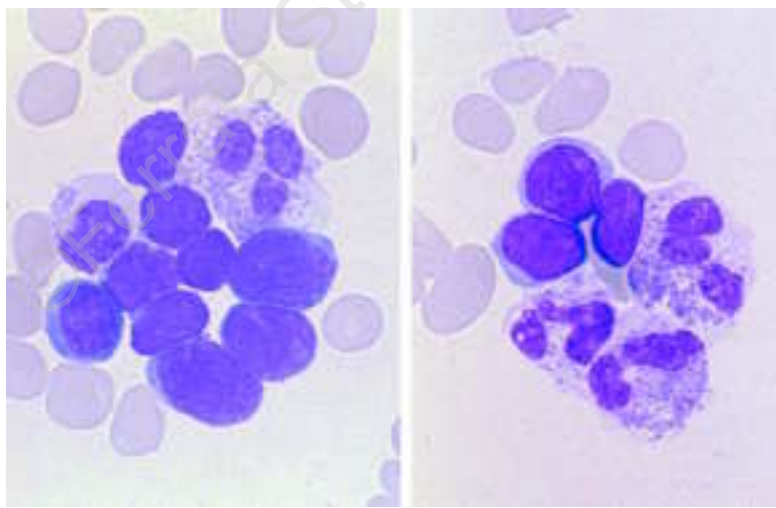


Figure 1. Cytologic examination of a bone marrow aspirate showing lymphoblasts and hypogranular eosinophils (MGG x1000).