

Simultaneous Presentation of Hairy Cell Leukemia and Acute Lymphoblastic Leukemia

Tüylü Hücreli Lösemi ve Akut Lenfoblastik Löseminin Eş Zamanlı Tanısı

Mingyong Li¹, Yuan He¹, Kang Jiang², Juan Zhang²

¹Sichuan Academy of Medical Science, Sichuan Provincial People's Hospital, Chengdu, China

²Shimian People's Hospital, Ya'an, China

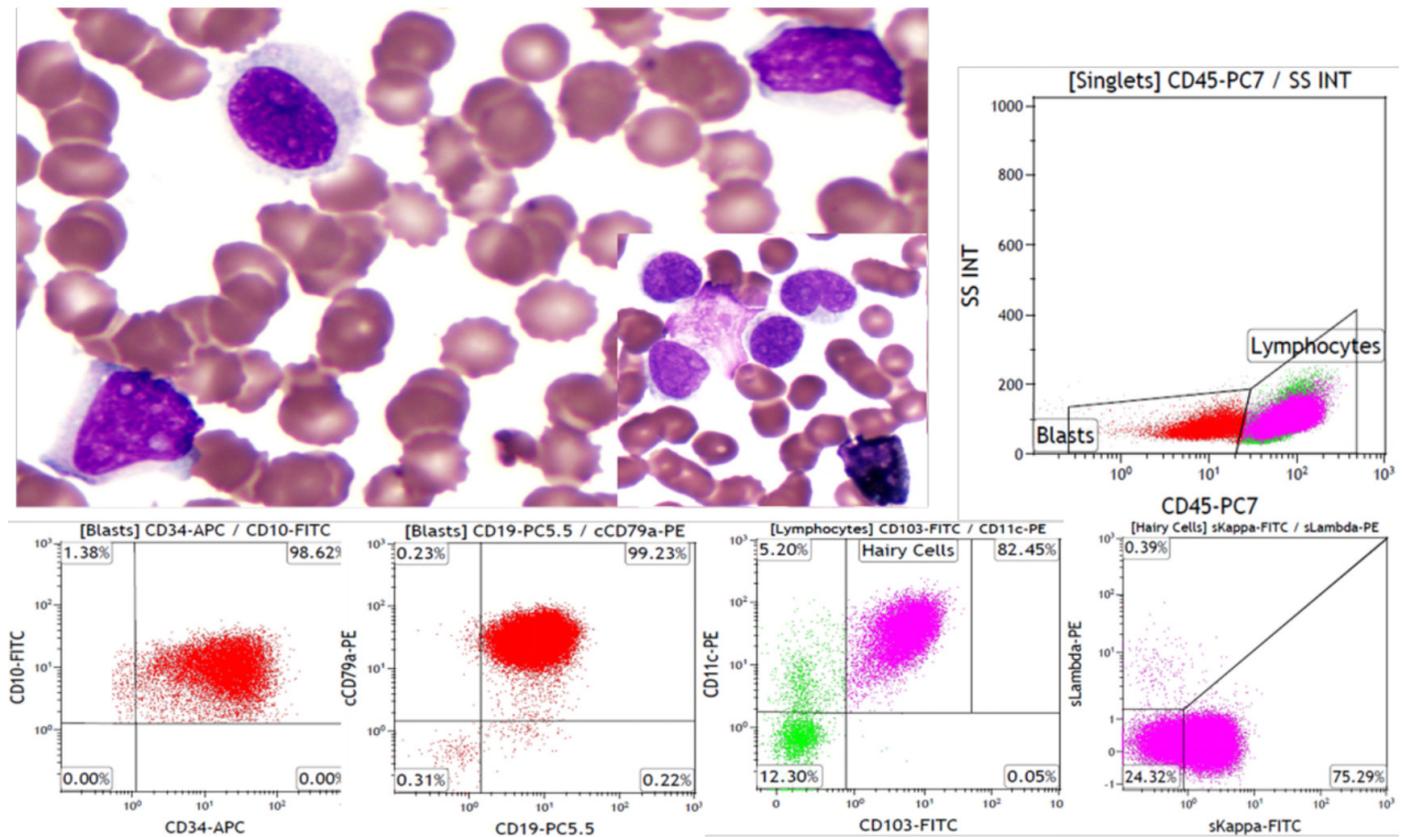


Figure 1. Peripheral and bone marrow smear revealed cells with cytoplasmic projections (top left corner, 1000 \times) and primitive cells (left upper diagonal line, 1000 \times). These cells were negative for peroxidase staining (right bottom of the top left picture, 1000 \times). Flow cytometry of the marrow confirmed two clonal B-cell populations (top right and bottom row; see text for details).



A 59-year-old man was admitted to the hospital because of repeated systemic bone pain for more than 1 month. His complete blood count revealed hemoglobin of 54 g/L, white blood cells of $12.35 \times 10^9/L$, neutrophils of $0.247 \times 10^9/L$, and a platelet count of $34 \times 10^9/L$. Peripheral and bone marrow smears revealed cells with cytoplasmic projections (Figure 1, top left corner) and primitive cells (left upper diagonal line). These cells were negative for peroxidase staining (right bottom of the top left picture). Flow cytometry of marrow confirmed two clonal B-cell populations (top right): the first (red) was $CD34^+CD10^+CD19^+cCD79a^+$ (bottom left) and $HLA-DR^+D33^+CD38^+(dim)CD2^-CD7^-CD13^-CD14^-CD15^-CD20^-CD56^-CD117^-cIgM^-cMPO^-cCD3^-$ (not shown), diagnostic of B-lineage acute lymphoblastic leukemia (B-ALL). A second population (purplish-red) was $CD103^+CD11c^+$ (bottom right), $CD19^+CD25^+CD123^+CD22^+CD20^+sIgM^+CD23^+CD5^-CD10^-CD38^-FMC7^-slambda^-$ (not shown), and $skappa$ light chain⁺ (bottom right), representing hairy cell leukemia (HCL). The BRAF V600E mutation was detected in the bone marrow aspirate sample. Therefore, the patient was diagnosed with simultaneous B-ALL and classic HCL. The association of ALL and HCL, either synchronous or metachronous, has rarely been reported [1].

In such cases, immunophenotyping with multiparameter flow cytometry is useful. This case highlights the indolent course of HCL, which can coexist with the acute process of ALL.

Keywords: Hairy cell leukemia, Acute lymphoblastic leukemia, Anemia

Anahtar Sözcükler: Tüylü hücreli lösemi, Akut lenfoblastik lösemi, Anemi

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Reference

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