

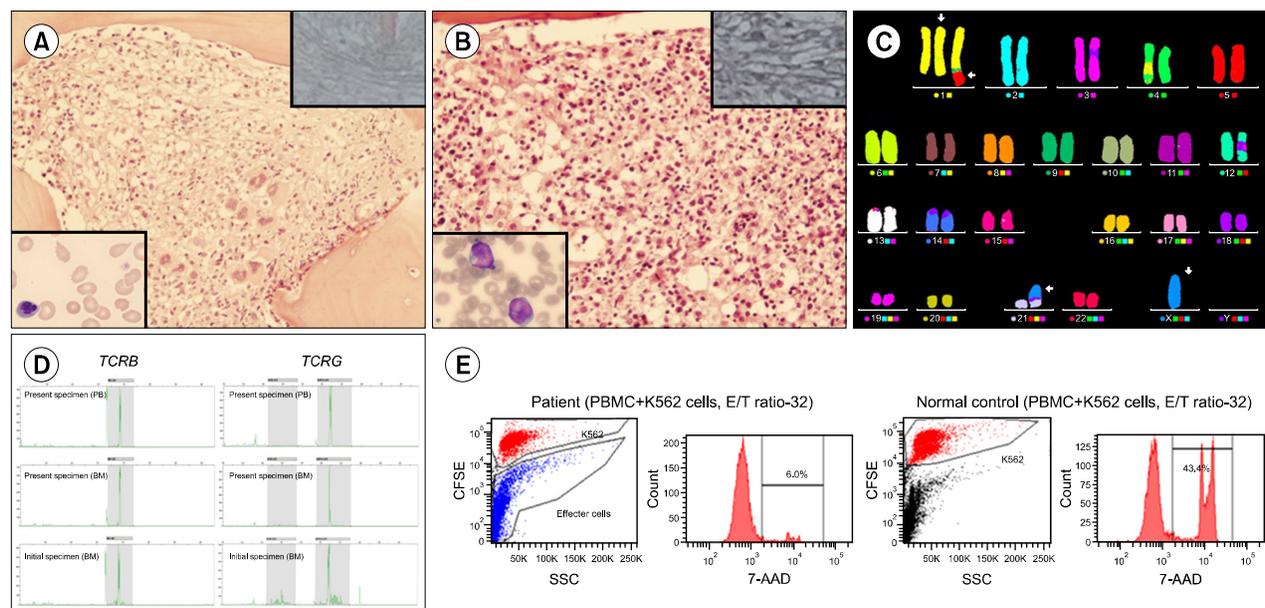
Extranasal natural killer/T-cell lymphoma initially presenting as myelofibrosis

Woori Jang, Myungshin Kim

Department of Laboratory Medicine, Catholic Genetic Laboratory Center, College of Medicine, The Catholic University of Korea, Seoul, Korea

Received on December 17, 2014; Revised on December 26, 2014; Accepted on January 20, 2015

Correspondence to Myungshin Kim, M.D., Ph.D., Department of Laboratory Medicine, Catholic Genetic Laboratory Center, College of Medicine, The Catholic University of Korea, 222 Banpo-daero, Secho-gu, Seoul 06591, Korea, E-mail: microkim@catholic.ac.kr



A 45-year-old woman was admitted with fever, generalized weakness, and 2 kg weight loss in 1 month. Two years prior, she was diagnosed with *JAK2* V617F-negative primary myelofibrosis (MF-2) (A, hematoxylin-eosin [H&E] stain, $\times 200$; upper right inset, reticulin stain, $\times 400$; lower left inset, peripheral blood, Wright stain, $\times 1,000$) with 46,XX, add(1)(q21)[8]/46,XX[22]. Complete blood count revealed the following values: white blood cells, $0.9 \times 10^9/L$, with a few atypical lymphocytes; hemoglobin, 9.0 g/dL; and platelets, $21 \times 10^9/L$. Chest computed tomography revealed several reactive lymph nodes and hepatosplenomegaly. Bone marrow biopsy revealed diffuse fibrosis (MF-2) and histiocytosis with active hemophagocytosis (B, H&E stain, $\times 200$; upper right inset, reticulin stain, $\times 400$). Ten days after admission, the atypical lymphoid cells in peripheral blood reached 95% (B, lower left inset, Wright stain, $\times 1,000$) and showed CD2, cytoplasmic CD3, CD7, CD45, CD56, and HLA-DR positivity. Chromosomal analysis revealed 46,X,-X,+der(1)ins(1;1)(q21;q32q44 or q44q32)t(1;5)(q44;q33),der(21)t(X;21)(q22;p13)[20] by multicolor fluorescent in situ hybridization analysis (C). Clonal TCR β - and γ -chain rearrangements were found in the present specimen, and identically rearranged TCR genes were found during initial diagnosis (D). NK function analysis revealed decreased NK-cell-mediated cytotoxicity (E). Accordingly, the patient was diagnosed with extranasal NK/T-cell lymphoma initially presenting as myelofibrosis.

*This study was supported by a grant of the Korea Health Technology R&D Project, Ministry of Health and Welfare, Republic of Korea (A120175).