

ABSTRACT

The TEL and AML1 genes occur in a markedly high number of different aberrations in hematological malignancies. We studied TEL/AML1 hybrid gene in transgenic mice model, translocation t(12;21)(p13;q22). This hybrid gene was searched by PCR method in 76 individuals. After, they were examined for presence of mRNA of fusion gene TEL/AML1 using RQ-RT-PCR.

Compared the blood cell analysis of transgenic and non-transgenic mice, we searched difference in the erythrocyte, lymphocyte, thrombocyte count and lymphocyte ratio in peripheral blood. The TEL/AML1 positive Acute lymphoblastic leukemia is B cell precursor leukemia, therefore we used cytofluometric analysis for study the ratio of the B lymphocytes of transgenic and non-transgenic mice. Then, we observed the leukemic cell marker of pre-B lymphocytes (B220⁺/CD43⁺). Presence of the pre-B lymphocytes in peripheral blood show incomplete differentiation and proliferation of B lymphocytes, consequently leucemogenesis.