Correspondence

Serum Levels of Interleukin-10 in B-Cell Chronic Lymphocytic Leukemia

To the Editor:

In a recent issue of Blood, interleukin-10 (IL-10) was described as an in vitro autocrine growth factor for human immunodeficiency virus (HIV)-related B-cell lymphoma. Also, elevated IL-10 serum levels have been reported in patients with lymphoma, both with and without HIV infection, and IL-10 serum levels were thought to be of prognostic value in HIV-negative intermediate or high-grade non-Hodgkin’s lymphomas (NHL).

These reports raise interest on the role of IL-10 in B-cell neoplasias. Here, we report on IL-10 serum levels in patients with B-cell chronic lymphocytic leukemia (B-CLL). Serum samples were obtained on ice from a total of 55 HIV-negative patients with B-CLL at various stages (24 Binet A, 11 Binet B, 20 Binet C) who were off treatment for at least 4 weeks before entering the study. Serum samples from 48 healthy blood donors served as controls. IL-10 was determined by means of a commercially available enzyme-linked immunosorbent assay (ELISA) kit according to the recommendations given by the supplier (Titerzyme; Biermann Diagnostica, Bad Nauheim, Germany).

In the control group, IL-10 serum levels were found at a median of 9.1 pg/mL (range 1.3 to 36.8 pg/mL). In 53 of the 55 B-CLL patients, IL-10 serum levels showed a median of 9.8 pg/mL (range 0.8 to 27.0 pg/mL), whereas two outliers displayed IL-10 levels of 262.4 pg/mL and 265.8 pg/mL, respectively (one patient at Binet stage A, another patient at Binet stage C). No statistically relevant difference became apparent between IL-10 levels of these 53 B-CLL patients and the controls (Mann-Whitney U-test; level of significance $P = .05$). This also holds true when IL-10 was analyzed by stage of the disease (given are median values and ranges): Binet A: 9.8 pg/mL; 0.8 to 27.0; Binet B: 9.5 pg/mL; 0.9 to 15.3; Binet C: 10.3 pg/mL; 2.4 to 26.9 (see Fig 1).

In summary, median IL-10 values did not differ between the

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**Fig 1.** Box and whiskers plot of IL-10 serum levels in healthy individuals and in patients with B-CLL at various stages of disease. Indicated are median values and ranges. Boxes define the ranges in which 50% of the IL-10 serum levels were determined.
healthy controls and the B-CLL patients, although some individuals may exhibit elevated levels without any clinical relevance yet apparent. Our findings are in contrast to earlier reports on IL-10 in different types of NHL other than B-CLL.\textsuperscript{2,4} So, the assumed involvement of IL-10 in malignant B-cell growth seems to be restricted to distinct entities of B-NHLs. Since IL-10 was shown to act as a growth and differentiation factor for B cells,\textsuperscript{5} its serum levels may depend on the maturation stage of the lymphoma cells as well as on an additional action of HIV.\textsuperscript{1}

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REFERENCES


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