Dear Sir,

The relations between thrombopoietin (c-mpl ligand), megakaryocytoid cytokines and pathological megakaryocytic-sis comprise an enigmatic complex [1]. We read the article by Patino-Sarcinelli et al. [2] who reported a case of leukemia with megakaryocytic differentiation following essential thrombocythemia and myelofibrosis. It was very interesting to note that this patient with increased megakaryocytic proliferation had a deletion of the long arm of chromosome 5 (5q-). The association between a clonal hematologic disorder characterized by hypopo-bulated micromegakaryocytic hyperplasia and a clonal cytogenetic anomaly consisting of 5q- is well-known. Increased megakaryocytic proliferation with characteristic morphology and the concomitant presence of normal or high platelet counts and leukopenia are the specific features of the 5q- syndrome [3, 4]. However, the exact mechanism causing these features still represents a dilemma. We had recently reported a possible cytokine mechanism of increased megakaryocytic proliferation with undetectable IL-4 and increased IL-6 levels in 5q deletion [5].

The proliferation and differentiation of hematopoietic cells is under the control of specific growth factors. Several major hematopoietic growth factors, including IL-4, acting on myeloid progenitors are located on the long arm of chromosome 5. On the other hand, the megakaryocytoid cytokine, IL-6, which seems to be responsible for me-gakaryocytic poiesis in many cases of reactive thrombocytosis is located in 7p15 [6, 7]. IL-4 may function directly as a negative regulator of megakaryocytoid poiesis, and also inhibits IL-6 synthesis and suppresses IL-6 production in vitro [8]. Increased IL-6 concentration might be due to decreased IL-4 synthesis caused by the deletion of 5q. IL-6, which has a chromosomal location of 7p15, is a well-known megakaryocyte potentiator [7, 9-12]. Consequently, leukopenia and thrombocytosis in the 5q- syndrome may be explained by cytokine interactions diminished by the deletion of the long arm of chromosome 5. It would be very interesting to determine megakaryocyte-related Interleu-

References


