Reciprocal translocation t(2;12)(q31;p13) in a case of CMML

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Clinics
Age and sex: 78 years old male patient
Previous History: no preleukemia; no previous malignant disease; no inborn condition of note.
Organomegaly: no hepatomegaly; splenomegaly; no enlarged lymph nodes; no central nervous system involvement.

Blood
WBC: 3.14 x 10^9/l; Hb: 5.7 g/dl; platelets: 86 x 10^9/l;

Cytopathology classification
Pathology: Increased cellularity, F:C ratio 5:95 mainly due to hyperplasia of myelocytic series with dysgranulopoiesis, CD34(+) cells approx. 13%, significant depression of erythroid series, abundant micromegakaryocytes.
Precise diagnosis: Chronic myelomonocytic leukemia (CMML).

Survival
Date of diagnosis: 02-2003.
Treatment: Supportive; blood transfusions, steroids, platelets transfusions.
Complete remission: None
Status: Dead 11-2005.
Survival: 33 months.

Karyotype
Sample: Bone marrow; Culture time: Direct preparations (after 1 h in culture) and 24 h; Banding: G-banding with Wright stain.
Results: 46,XY,t(2;12)(q31;p13)[22]/47,idem,+21[3].

Partial karyogram of the cytogenetically abnormal clone with the translocation t(2;12)(q31;p13). The arrows indicate the breakpoint in the abnormal chromosomes 2 and 12.

Comments
Among the haematological malignancies with clonal chromosome aberrations reported in the world literature, there is only one case with the same cytogenetic clonal evolution, since a second abnormal translocation t(2;12)(q31;p13), a non Hodgkin lymphoma published by Sato et al., 1997. The karyotypic findings of the present case indicates a clone with the translocation t(2;12)(q31;p13) and trisomy of chromosome 21 was identified together with the clone displaying the t(2;12)(q31;p13) as the sole change.
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References


This article should be referenced as such: