Leukaemia Section
Short Communication

t(2;3)(p15-p23;q26-27)
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Identity

Note
There are 2 subtypes of the t(2p;3q); in one type the breakpoint on chromosome 2 is assigned to bands 2p21-23, whereas the breakpoint for the other type of breakpoint is localized at 2p15-21.

Partial GTG (Marian Stevens-Kroef, left) and RFA (Anne Hagemeijer, right) banded karyotypes of t(2;3)(p15-23;q26-27) with the distal (A) and proximal (B) breakpoint on chromosome 2.

Clinics and pathology

Disease
In myeloid malignancies, (therapy-related) acute myeloid leukemias (AML), myelodysplastic syndromes (MDS) and chronic mylogenous leukemia in blastic crisis (CML-BC).

Epidemiology
50 cases described so far; 4M/3F; age 3-80 years (median 52).

Cytology
Dysplastic bone marrow, dysmegakaryopoiesis, high platelet counts.

Prognosis
Poor prognosis: median survival 12 months (range 1-53).

Cytogenetics

Note
Heterogeneous breakpoints by cytogenetic and
FISH analysis; FISH mapping of 2p breakpoints was very heterogeneous; FISH mapping of the 3q breakpoint was within the EVI1-MDS region (between RP11-694D5 (centromeric) and RP11-362K14 (telomeric)) in the great majority of cases.

**Additional anomalies**
-7, del(7q), del(5q). The t(2p:3q) is also seen in t(9;22)(q34;q11) CML.

**Genes involved and proteins**

**EVI1**

**Location**
3q26

**Note**
There is a direct correlation between mapping of the 3q breakpoint in the above given EVI1-MDS region and EVI1 ectopic expression by RT-PCR. Rare case with 3q break outside this interval failed to show ectopic expression of EVI1.

**References**


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*This article should be referenced as such:*