

## Leukaemia Section

### Short Communication

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

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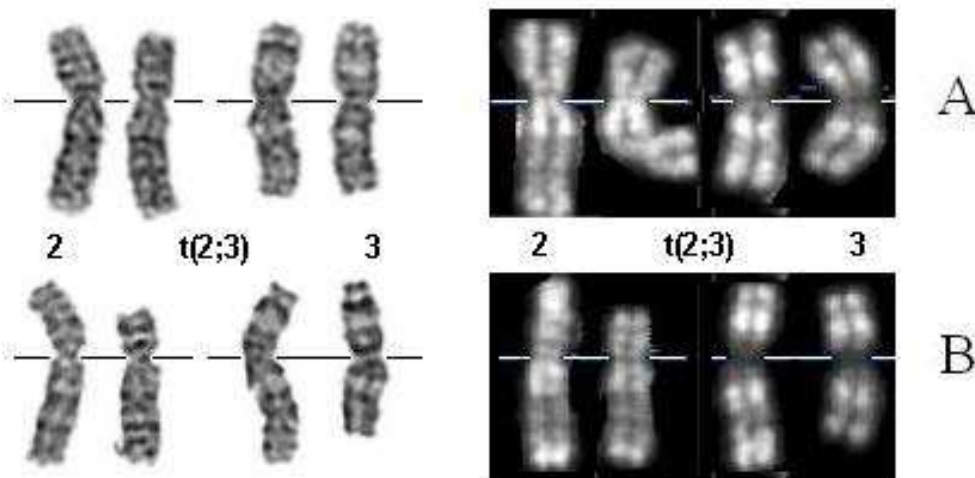
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## Identity

### 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 Hagemeyer, 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 myelogenous 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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