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Leukaemia Section

Short Communication

t(1;3)(p36;q21)

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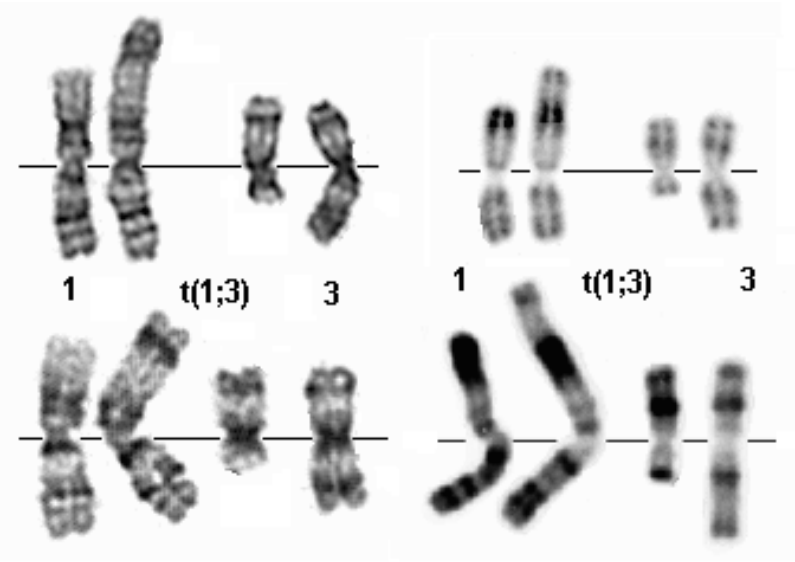

t(1;3)(p36;q21) G-banding (left) - Courtesy Diane H. Norback, Eric B. Johnson, and Sara Morrison-Delap, Cytogenetics at the Waisman Center; R-banding (right) -Courtesy Pascale Cornillet-Lefebvre and Stéphanie Struski.

Clinics and pathology

Disease

Myeloid lineage (MDS, ANLL, therapy related ANLL, CML, MPD); very rarely in lymphoid lineage.

Phenotype/cell stem origin

Of 39 available cases, there were: 22 myelodysplastic syndromes (MDS) (17/22 transformed into refractory acute non lymphoblastic leukemia (ANLL) of -M1 or -M4 type), 8 de novo ANLL, 3 therapy-related MDS, 2 polycythemia vera, 1 essential thrombocythemia, 1 chronic myelogenous leukemia (CML), 1 multiple myeloma, 1 waldenstrom's macroglobulinemia.

Epidemiology

Patients are aged: 30-80 years.

Clinics

Blood data: frequent thrombocytosis or normal platelet count.

Cytology

Frequently characterized by dysmegakaryocytopoiesis.

Pathology

Trilineage dysplasia.

Prognosis

Very poor so far: from 16 cases, median survival was 6 months in ANLL, 20 months in MDS.

Cytogenetics

Cytogenetics morphological

del(5q) in 5 of 20 cases (1/4).

Genes involved and proteins

Note

Genes involved are yet unknown.

To be noted

Note

It has been hypothesized that the chromosomal breakpoints at the 3q21 in ANLL/MDS with t(1;3) overlap with the breakpoints of the 3q21q26 syndrome(inv(3)(q21q26), t(3;3)(q21;q26)); common molecular mechanism may explain the clinical and morphologic similarities seen in these malignancies.

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