Leukaemia Section
Short Communication

t(11;22)(q23;q11.2)
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Identity

Note: Not to be confused with the t(11;22)(q23;q13), involving MLL and P300.

Clinics and pathology

Disease
De novo acute non lymphocytic leukemia (ANLL), so far.

Phenotype/cell stem origin
2 cases of M4, one M2, and one M1.

Epidemiology
Yet poorly known; 2 young adults (22 and 34 yrs) and 2 infant twins; 2M/2F.

Prognosis
Documented in only 2 cases (dead at 10 and 21 mths); likely to be comparable with that of other entities with 11q23/MLL involvement.

Cytogenetics

Cytogenetics morphological
Sole anomaly in 3 of 3 cases.

Genes involved and proteins

MLL
Location
In 11q23.
DNA/RNA
13-15 kb mRNA.

Protein
431 kDa; contains two DNA binding motifs (a AT hook, and Zinc fingers), a DNA methyl transferase motif, a bromodomain; transcriptional regulatory factor; nuclear localisation.

hCDCRel
Location
22q11
DNA/RNA
2 kb mRNA
Protein
hCDCRel (human cell division cycle related) is a septin (family of filament forming proteins, involved in cytosqueletal organization).

Result of the chromosomal anomaly

Hybrid gene
Description
5 prime MLL - 3 prime hCDCRel, with fusion of MLL exon 7 to hCDCRel exon 3.

References


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t(11;22)(q23;q11.2) In acute myeloid leukemia of infant twins fuses MLL with hCDCrel, a cell division cycle gene in the genomic region of deletion in DiGeorge and velocardiofacial syndromes. Proc Natl Acad Sci U S A. 1998 May 26;95(11):6413-8


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