

t(3;21)(q26;q22) in treatment related leukemia

Identity

Note This data is extracted from a very large study from an International Workshop on treatment related leukemias - restricted to balanced chromosome aberrations (i.e.: [-5/del\(5q\)](#) and [-7/del\(7q\)](#) not taken into account per se), published in Genes, Chromosomes and Cancer in 2002.

Clinics and Pathology

Disease Treatment related myelodysplasia (t-MDS) or acute non lymphocytic leukaemias (t-ANLL)

Note The study included 16 cases; t-MDS without progression to ANLL accounted for 38%, t-MDS progressing to ANLL for 25%, t-ANLL for the remaining 38% (to be compared with the 80% of t-ANLL in cases with t(8;21)); no case of acute lymphoblastic leukaemia

Epidemiology [t\(3;21\)\(q26;q22\)](#) was found in 3% of t-MDS/t-ANLL; sex ratio: 5M/11F

Clinics Age at diagnosis of the primary disease 49 yrs (range 14-72); age at diagnosis of the t-MDS/t-ANLL: 53 yrs range 19-73). Median interval was 36 mths, range: 17-139). Primary disease was a solid tumor in 56% of cases and a hematologic malignancy in 44%. Treatment included topoisomerase II inhibitors in 81% of cases).

Prognosis Median survival was 8 mths. Outcome was worse than the outcome of patients with [t\(8;21\)\(q22;q22\)](#), [t\(15;17\)](#) or [inv\(16\)](#) treatment related leukemias, and similar to the outcome of patients with [11q23 rearrangement](#)

Cytogenetics

Additional anomalies The t(3;21) was found solely in 31% of cases; additional anomaly was: [-7/del\(7q\)](#) in 31% of cases, [+8](#) was not observed . A complex karyotype was found in 25% of cases

Result of the chromosomal anomaly

Hybrid

gene 5' [AML1](#) - 3' [MDS1-EVI1](#); breakpoint is most often in the AML1 intron 6.

Description

External links

Other database [t\(3;21\)\(q26;q22\) in treatment related leukemia](#) [Mitelman database \(CGAP - NCBI\)](#)

Other database [t\(3;21\)\(q26;q22\) in treatment related leukemia](#) [CancerChromosomes \(NCBI\)](#)

Bibliography

21q22 balanced chromosome aberrations in therapy-related hematopoietic disorders: report from an international workshop.

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Genes Chromosomes Cancer 2002; 33: 379-394.
Medline [11921272](#)

Contributor(s)

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<http://www.infobiogen.fr/services/chromcancer/Anomalies/t0321q26q22TreatReID1294.html>

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