t(9;22)(q34;q11) in treatment related leukemia

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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 see), published in Genes, Chromosomes and Cancer in 2002.

Clinics and pathology

Disease

Treatment related acute non lymphocytic leukaemias (t-ANLL) and lymphocytic leukemias (t-ALL).

Note

The study included 10 cases; t-ANLL and t-ALL accounted for half cases each. Treatment related acute lymphocytic leukemias (t-ALL) are extremely rare, found in only 20 of 511 cases (4%) in this workshop: 5 cases of t(9;22), 12 cases of t(4;11)(q22;q23), 2 cases of t(8;14)(q24;q32), and 1 case of t(11;19)(q23:p13.3).

Epidemiology

t(9;22)(q34;q11) was found in 2% of treatment related acute leukemias; sex ratio: 2M/8F.

Clinics

Age at diagnosis of the primary disease 45 yrs (range 3-76); age at diagnosis of the t-MDS/t-ANLL: 64 yrs (range 12-78). Median interval was long: 110 mths (range: 25-310). Primary disease was a solid tumor in 70% of cases (in particular breast cancer) and a hematologic malignancy in 20%; treatment was radiotherapy in 1/10, chemotherapy (6/10), or both (3/10). Treatment included topoisomerase II inhibitors in 4 of 9 cases and alkylating agents in 5/9.

Prognosis

Median survival was very poor: 5 mths, with 14% of patients surviving at 1 yr, and none at 2 yrs.

Cytogenetics

Additional anomalies

Complex karyotypes were found in 6 of 10 cases.

Result of the chromosomal anomaly

Hybrid gene

Description

5’ BCR -3’ ABL.

References


This article should be referenced as such: