inv(16)(p13q22) in treatment related leukemia

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Published in Atlas Database: October 2003
Online updated version : http://AtlasGeneticsOncology.org/Anomalies/inv16p13q22TreatRelID1297.html
DOI: 10.4267/2042/38046
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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 myelodysplasia (t-MDS) or acute non lymphocytic leukemias (t-ANLL).

Note

The study included 48 cases; t-MDS without progression to ANLL accounted for 8%, t-MDS with progression to ANLL for 13% and t-ANLL for the remaining 79% the ANLL subtype was M4eo in 83%, M2 in 14%; no case of acute lymphoblastic leukaemia.

Epidemiology

inv(16)(p13q22) was found in 9% of t-MDS/t-ANLL; sex ratio: 18M/30F.

Prognosis

Patients under 55 yrs of age had better outcome. Median survival was 79 mths, with 45% of patients surviving at 5 yrs, the best survival among subgroups of treatment related leukemias with a balanced chromosome aberration (patients with 11q23 rearrangement, 3q21q26 rearrangement, 12p13 rearrangement, t(9;22), t(8;16), or a 21q22 rearrangement). Patients with t(15;17) had similar median survival, but less long term survivors.

Cytogenetics

Additional anomalies

The inv(16) was found solely in 46% of cases; additional anomalies were: +8 in 17%, +21 in 13%, +22 in 8%, -7/del(7q) in 8%, +13 in 6%, or -5/del(5q).

Result of the chromosomal anomaly

Hybrid gene

Description
5’CBFB -3’ MYH11.
References

This article should be referenced as such: