

12p13 rearrangements 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 9 cases; t-MDS without progression to ANLL accounted for 2 of 9 cases, t-MDS with progression to ANLL for 1 case and t-ANLL for the remaining 6 cases; no case of acute lymphoblastic leukaemia

Epidemiology 12p13 rearrangements were found in 2% of t-MDS/t-ANLL; sex ratio: 5M/4F

Clinics Age at diagnosis of the primary disease 40 yrs (range 11-64); age at diagnosis of the t-MDS/t-ANLL: 48 yrs (range 25-69). Median interval was relatively long: 81 mths (range: 18-223). Primary disease was a solid tumor in only 2 of 9 cases, and a hematologic malignancy in 7/9; treatment was chemotherapy (3/9), or both (6/9). Treatment included topoisomerase II inhibitors in 5 of 9 cases and alkylating agents in 8/9.

Prognosis Median survival was very poor: 4 mths, with 15% of patients surviving at 1 yr, and none at 2 yrs.

Cytogenetics

Additional anomalies 12p13 rearrangements included: [t\(1;12\)\(q21;p13\)](#), [t\(4;12\)\(q12;p13\)](#), [t\(7;12\)\(p15;p13\)](#), [t\(8;12\)\(p12;p13\)](#), [t\(12;20\)p13;q11](#), and [t\(12;22\)\(p13;q11\)](#) ID: [t\(12;22\)\(p13;q11\)>](#) and other rearrangements. [Complex karyotypes were found in 7 of 9 cases; -7/del\(7q\)](#) and/or were found in 6 of 9 cases.

Result of the chromosomal anomaly

Hybrid

gene 5' [ETV6](#) -3' partner where ETV6 is known to be involved

Description

Bibliography

Rare recurring balanced chromosome abnormalities in therapy-related myelodysplastic syndromes and acute leukemia: report from an international workshop.

Block AW, Carroll AJ, Hagemeijer A, Michaux L, van Lom K, Olney HJ, Baer MR. Genes Chromosomes Cancer 2002; 33: 401-412.

Medline [11921274](#)

Contributor(s)

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<http://www.infobiogen.fr/services/chromcancer/Anomalies/12p13TreatRelLeukID1301.html>

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