

## t(15;17)(q22;q21) 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 41 cases; t-MDS with progression to ANLL accounted for 7% and t-ANLL for the remaining 93% the ANLL subtype was M3 in all but one case; no case of acute lymphoblastic leukaemia

**Epidemiology** [t\(15;17\)\(q22;q21\)](#) was found in 8% of t-MDS/t-ANLL; sex ratio: 15M/26F

**Clinics** Age at diagnosis of the primary disease 46 yrs (range 18-79); age at diagnosis of the t-MDS/t-ANLL: 49 yrs (range 19-81). Median interval was 29 mths (range: 9-175). Primary disease was a solid tumor in 71% of cases ( [breast cancer](#) in particular) and a hematologic malignancy in 27%, treatment was radiotherapy (29%, a high proportion compared to other groups), chemotherapy (17%), or both (54%). Treatment included topoisomerase II inhibitors in 49% of cases and alkylating agents in 59%.

**Prognosis** Median survival was 29 mths. Outcome was better than the outcome of patients with [11q23 rearrangement](#), [3q21q26 rearrangement](#), [12p13 rearrangement](#), [t\(9;22\)](#), [t\(8;16\)](#), or a [21q22 rearrangement](#) and similar, during the first 2 yrs to that of the [inv\(16\)](#) treatment related leukemias.

### Cytogenetics

**Additional anomalies** The t(15;17) was found solely in 59% of cases; additional anomalies were: [+8](#) in 12% , [-5/del\(5q\)](#) in 5%, or [-7/del\(7q\)](#).

### Result of the chromosomal anomaly

#### Hybrid

**gene** 5' [PML](#) -3' [RARA](#)

Description

### External links

Other database [t\(15;17\)\(q22;q21\) in treatment related leukemia](#) [Mitelman database \(CGAP - NCBI\)](#)

Other database [t\(15;17\)\(q22;q21\) in treatment related leukemia](#) [CancerChromosomes \(NCBI\)](#)

### Bibliography

**Balanced chromosome abnormalities inv(16) and t(15;17) in therapy-related myelodysplastic syndromes and acute leukemia: report from an international workshop.**

Andersen MK, Larson RA, Mauritzson N, Schnittger S, Jhanwar SC, Pedersen-Bjergaard J.

Genes Chromosomes Cancer 2002; 33: 395-400.

Medline [11921273](#)

**Contributor(s)**

**Written** 10-2003 Jean-Loup Huret

**Citation**

*This paper should be referenced as such :*

**Huret JL** . t(15;17)(q22;q21) in treatment related leukemia. Atlas Genet Cytogenet Oncol Haematol. October 2003 .

URL :

<http://www.infobiogen.fr/services/chromcancer/Anomalies/t1517q22q21TreatReID1298.html>

© Atlas of Genetics and Cytogenetics in Oncology and Haematology

---