t(1;7)(p36;q34)

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Published in Atlas Database: November 1999

Online updated version: http://AtlasGeneticsOncology.org/Anomalies/t0107ID1157.html

DOI: 10.4267/2042/37560

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Identity

Partial karyotype (G-banding) showing the t(1;7)(p36;q34).

Clinics and pathology

Disease
Acute non lymphocytic leukemia (ANLL), presenting as a de novo condition or after preceeding myelodysplastic syndrome or exposure to myelotoxic agents.

Phenotype/cell stem origin
M2/M4 by FAB criteria, frequently with trilineage myelodysplasia: positivity for myeloid markers (i.e. CD13, CD33) as well as for CD117, CD34 and TdT; lymphoid-associated markers tested negative in the reported cases.

Epidemiology
The frequency of this anomaly in ANLL is < 1%.

Prognosis
The cells may be susceptible to chemotherapy since all reported cases achieved complete remission, despite the presence of other unfavourable prognostic factors.

Cytogenetics

Note
This translocation may be related to a 1p;7q translocation described in myelodyplastic syndrome, whereas it must be distinguished from the T-ALL associated t(1;7)(p32;q34), involving the TCR gene and a more proximal breakpoint on 7q.

Cytogenetics morphological
The translocation is easy to visualize in G-banded preparations because the dark 7q35 band moves on top of the derivative 1p.

Probes
Partial chromosome paints for the 7q31-qter region.

Additional anomalies
Associated / additional anomalies may include +8 and the classical t(6;9)(p23;q34).

Genes involved and proteins

Note
The involved genes are unknown.

References


This article should be referenced as such: