Leukaemia Section
Short Communication

\[ t(16;21)(p11;q22) \]
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Clinics and pathology

Disease
De novo ANLL; (one case of blast crisis CML).

Phenotype / cell stem origin
Mainly M2 or M4, but also M1, M5a, M5b, or M7 ANLL; may be preceded by MDS.

Epidemiology
About 30 reported cases, mainly found in young adults; children cases are described; median age is about 30 yrs; balanced sex ratio.

Clinics
Blood data: anemia, thrombocytopenia, mild hyperleucocytosis; with high monocytic cell count at times.

Cytology
Myelocytic and monocytoid features are often present; eosinophils in the bone marrow are sometimes abnormal and/or elevated; erythrophagocytosis may be found.

Prognosis
Seems poor: complete remission may not be achieved; there is high incidence of relapse within a year and a median of survival is about 22 months (cases herein reviewed).

Cytogenetics

Additional anomalies
Rarely found solely; most often associated with various numerical or structural abnormalities; trisomy 10 was found in 4 of 17 cases.

Genes involved and Proteins

FUS
Location: 16p11

ERG
Location: 21q22

Results of the chromosomal anomaly

Hybrid gene
Description
5' FUS - 3' ERG

Fusion protein
Description
N-term FUS RNA binding domain fused to the C-term DNA binding ETS domain of ERG.

Oncogenesis
Seems to act as a transcriptional activator.

References

This article should be referenced as such: