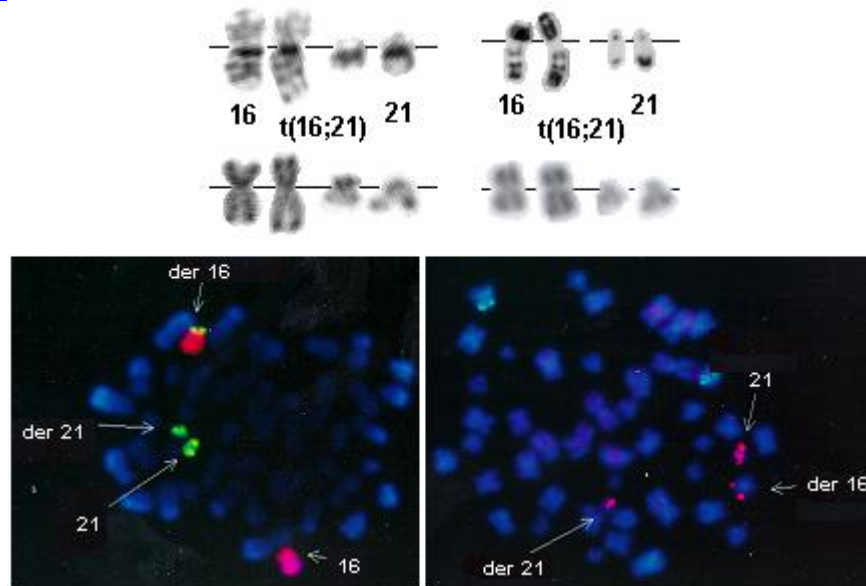


t(16;21)(q24;q22)

Identity



t(16;21)(q24;q22) G-banding (top left) - Courtesy Jean Luc Lai; R-banding (middle left - Courtesy Jean Luc Lai and top and middle right - Courtesy Pascale Cornillet-Lefebvre and Stéphanie Struski). Fish studies: chromosome 16 and 21 paints; AML1 probe: the 2 chromosomes 21 and the der(16) are labelled (below) - Courtesy Pascale Cornillet-Lefebvre and Stéphanie Struski.

Clinics and Pathology

Disease Myelodysplastic syndromes (MDS) and acute non lymphocytic leukemias (ANLL) and therapy related ANLL

Phenotype / cell stem origin M1 or M2 ANLL

Etiology 11 of 15 cases have had treatment for a previous malignancy (treatment related MDS or ANLL (t-MDS/ANLL)). Previous disease was a breast cancer in 5 cases, a hematologic malignancy in 4.

Epidemiology 15 available cases at least, sex ratio: 2M / 13F; mediane age around 50 yrs (range <15 - 62)

Clinics blood data: pancytopenia

Prognosis poor

Cytogenetics

Additional anomalies + 8 found in 7 of 15 cases

Genes involved and Proteins

Gene Name CBFA2T3 (MTG16)

Location 16q24
Protein member of the [ETO \(MTG8\)](#) family
Gene Name [AML1](#)
Location 21q22
Dna / Rna transcription is from telomere to centromere
Protein contains a Runt domain and, in the C-term, a transactivation domain;
forms heterodimers; widely expressed; nuclear localisation; transcription
factor (activator) for various hematopoietic-specific genes.

Result of the chromosomal anomaly

**Hybrid
gene** 5' AML1 - 3' CBFA2T3
Description

External links

Other database [t\(16;21\)\(q24;q22\)](#) [Mitelman database \(CGAP - NCBI\)](#)
Other database [t\(16;21\)\(q24;q22\)](#) [CancerChromosomes \(NCBI\)](#)

To be noted

Additional cases are needed to delineate the epidemiology of this rare entity:
you are welcome to submit a paper to our new [Case Report](#) section.

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