Leukaemia Section
Short Communication

**t(3;11)(p21;q23)**

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**Clinics and pathology**

**Disease**

Treatment related acute non lymphoblastic leukemia (t-ANLL).

**Phenotype/cell stem origin**

M5b ANLL.

**Epidemiology**

Only one case; a female patient aged 23 yrs and treated 9 years ago for T-ALL.

**Prognosis**

Unknown; likely to be poor, both as it carries a MLL rearrangements and as occurs in t-ANLL.

**Cytogenetics**

**Cytogenetics morphological**

Sole anomaly.

**Genes involved and proteins**

**MLL**

- **Location**: In 11q23
- **DNA/RNA**: 13-15 kb mRNA.
- **Protein**: 431 kDa; contains two DNA binding motifs (a AT hook, and Zinc fingers), a DNA methyl transferase motif, a bromodomain; transcriptional regulatory factor; nuclear localisation.

**AF3p21**

- **Location**: 3p21

**Result of the chromosomal anomaly**

**Hybrid gene**

- **Description**: Breakpoints of MLL between exons 9 and 10 and upstream of exon 1 of the AF3p21 gene.

**Fusion protein**

- **Description**: AT hooks and methyltransferase domains of MLL in the N-term fused to the proline-rich domain and nuclear localization signal of AF3p21.

**References**

Sano K, Hayakawa A, JinHua P. A novel sh3 protein encoded by the AF3p21 gene is fused to MLL in a therapy-related leukemia with t(3; 11)(p21;q23). Blood. 1999 ; 94 (numero Suppl 1).

**This article should be referenced as such:**