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# 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 anormaly.

## 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:*

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