Leukaemia Section
Short Communication

t(3;11)(q28;q23)
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Clinics and pathology

Disease
Treatment related acute non lymphocytic leukemia (t-ANLL) so far.

Epidemiology
Only 1 case available.

Clinics
A 41 year old female patient with a previous history of non Hodgkin lymphoma treated with topoisomerase II inhibitors 3 years earlier; she developped a M5a t-ANLL and died 10 days after diagnosis.

Cytogenetics

Additional anomalies
A complex karyotype was found in the only available case, with +8 and other anomalies.

Genes involved and proteins

LPP
Location: 3q28
Protein
LPP is a member of the LIM protein gene family, containing a leucin-zipper motif in its amino-terminal region and three LIM domains in its carboxy-terminal region.

MLL
Location: 11q23
Protein
Contains two DNA binding motifs (a AT hook, and Zinc fingers), a DNA methyl transferase motif, a bromodomain; transcriptional regulatory factor involved in maintenance of Hox gene expression.

Result of the chromosomal anomaly

Hybrid gene
Description
5’ MLL including the 8 first exons fused to the 3 last 3’ exons (exons 9 to 11) of LPP.

Transcript
The reciprocal 5’MLPP-3’MLL is also transcribed.

Fusion protein
Description
N-term AT hook and DNA methyltransferase from MLL fused to the 2 last C-term LIM domains of LPP.

References

This article should be referenced as such: