

## Case Report Section

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# A new case of translocation t(14;14)(q11;q32) in B lineage ALL

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### Clinics

#### Age and sex

43 years old male patient.

#### Previous history

no preleukemia ; no previous malignancy ; no inborn condition of note.

#### Organomegaly

hepatomegaly , splenomegaly , no enlarged lymph nodes , central nervous system involvement.

### Blood

WBC : 227X 10<sup>9</sup>/l

HB : 5,9g/dl

Platelets : 51X 10<sup>9</sup>/l

Blasts : 12%

Bone marrow : aspirate: 90% lymphoblast%

### Cyto-Pathology Classification

#### Cytology

LLA-L2

#### Immunophenotype

HLA-DR+, TdT+, CD79a+, CD19+, cyCD22+, CD20+, CD10+

#### Rearranged Ig Tcr

rearranged IGH (FISH)

#### Pathology

not done

#### Electron microscopy

not done

#### Diagnosis

common B-ALL

### Survival

Date of diagnosis: 02-2009

Treatment: Cancer and Leukemia Group B (CALGB) protocol

Complete remission : not evaluated

Treatment related death : Neutropenia and lung infection

Relapse : no

Status: Death. Last follow up: 03-2009

Survival: 20 days

### Karyotype

Sample: Bone marrow

Culture time: 24 and 48 hours without stimulating agents

Banding: G

Results: 46,XY,t(14;14)(q11;q32.1)[20]

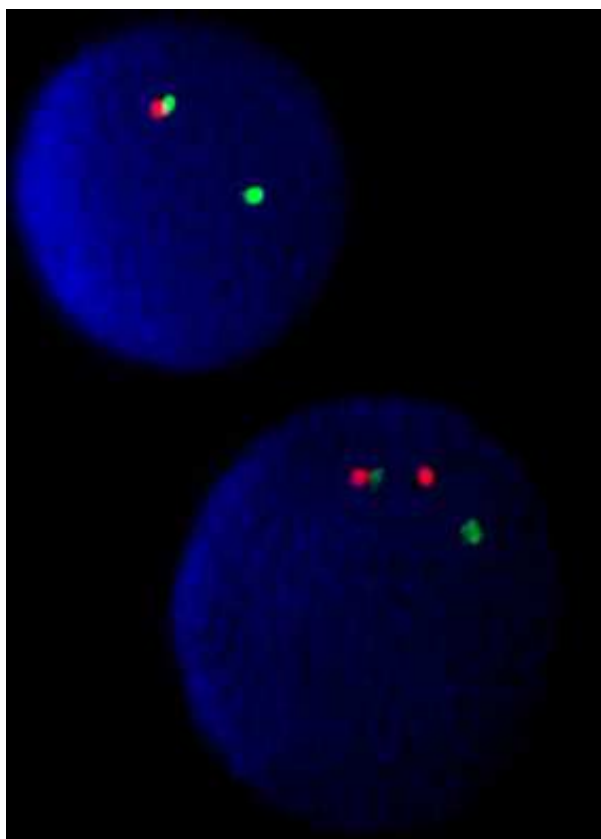
Karyotype at Relapse: not done

Other molecular cytogenetics technics

FISH using IGH Break Apart Rearrangement Probe, Vysis

Other molecular cytogenetics results

nuc ish(IGHx2)(5'IGH sep 3'IGHx1)[154/200]  
(5'IGHx2,3'IGHx1)(5'IGH con 3'IGHx1)[33/200]

G- banded partial karyotypes showing the  $t(14;14)$ .

Interphase FISH shows IGH gene rearrangements (IGH Dual Color, Break Apart Rearrangement probe).

## Comments

Translocation  $t(14;14)(q11;q32)$  in B lineage acute lymphoblastic leukemia was described in few cases, some of them associated with other recurrent

rearrangements such as  $t(4;11)$  and  $t(8;14)$ . Lui et al, in 2004 showed IGH rearrangement in two cases, although the partner was unknown. Akasaka et al in 2007, described CEBPE involvement in a patient with B-ALL and  $t(14;14)(q11;q32)$ . In 2008, Han et al showed through FISH analysis the presence of trisomy 4 as a simultaneous involvement of IGH and CEPBE genes.

The  $t(14;14)(q11;q32)$  CEBPE/IGH may be associated with good prognosis in B-ALL. In 4 cases with clinical follow-up, complete remission was achieved and those were alive at the time of report. In the case described herein, the  $t(14;14)$  was the sole anomaly, IGH rearrangement was detected but CEBPE involvement was not studied. This patient has well known bad prognostic features as high WBC count and CNS involvement and died few days after diagnosis.

## References

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