**CASE REPORTS in HAEMATOLOGY**
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**Translocation t(11;15)(q23;q14) detected in AML at first relapse**

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**Clinics**

Age and sex: 30 year(s) old male patient.

Previous History: no preleukemia

17 months before (September, 2006) an AML-M6 “de novo” (FAB) was diagnosed. Immunophenotype study showed expression of CD117, CD34, HLA-DR, CD33, CD13, CD71, CD38, CD36 and CD11c, Bone Marrow karyotype showed clonal trisomy 21 (47,XY,+21[2]/46,XY[13]). The treatment included chemotherapy induction cycle with Idarubicin and Ara-C (3+7) and consolidation with HDDAC. In April, 2007 a hematologic and immunophenotypic remission was observed, although a karyotype showed one metaphase with trisomies 13 and 21 (48,XY,+13,+21[1]/46,XY[19]). In October, 2007, cytometry and cytogenetic bone marrow studies showed complete remission.

no inborn condition of note

Organomegaly: no hepatomegaly; no splenomegaly; no enlarged lymph nodes; no central nervous system involvement

**Blood**

WBC: 93 x 10^9/l; Hb: 9.8 g/dl; platelets: 40 x 10^9/l; blasts: 96%

**Cyto pathology classification**

Cytology: AML-M1

Immunophenotype: CD 45+ gate: CD117, CD34, HLA-DR, CD33, CD13, CD71, CD38, CD36, CD11c and cMPO.

Rearranged Ig Tcr: not done

Pathology: not done

Electron microscopy: not done

Precise diagnosis: AML in first relapse.

**Survival**

Date of diagnosis: 02-2008

Treatment: VP16/ Mitoxantrone/Ara-C

Complete remission: None

Treatment related death: -

Relapse: -

Phenotype at relapse: -

Status: Alive 09-2008

Survival: 7 month(s)

**Karyotype**

Sample: Bone marrow cells; culture time: 24 h, and 48 hs without stimulating agents; banding: G

Results: 46,XY,t(11;15)(q23;q14)[20]

Karyotype at relapse: not applied

Other molecular cytogenetics technics: FISH (bone marrow, LSI MLL Dual Color, Break Apart Rearrangement Probe, Vysis)

Other molecular cytogenetics results: nuc ish(MLLx2)[100]

**Other molecular studies**

technics: not done
Partial karyotypes- G-band- showing the t(11;15)(q23;q14) as the sole anomaly

Interphase FISH using MLL Dual Color, Break Apart Rearrangement probe- no MLL gene rearrangement was observed

**Comments**

Translocation t(11;15)(q23;q14) have been described in few cases of acute leukemia, including ALL2 and AML 1,3,4,7. Although rare, molecular studies have demonstrated the diversity of this cytogenetic abnormality, and MLL gene rearrangement could be or not detected 2,5. When it is present, two different genes could be fused to MLL (AF15q14 and MPFVE) 6,7.

We described herein a t(11;15)(q23;q14) without MLL rearrangement in AML at first relapse. As this translocation was not detected at diagnosis, we could not discard the implication of previous chemotherapy in this cytogenetic abnormality.

**Internal links**

Atlas Card  t(11;15)(q23;q14)

**Bibliography**

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