Chronic lymphocytic leukaemia/Small lymphocytic lymphoma (CLL/SLL) associated with translocation t(1;6)(p35;p25) as part of complex karyotype


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**Clinics**

**Age and sex**
64 years old male patient.

**Previous history**
No preleukemia, previous malignancy Chronic lymphocytic leukaemia/Small lymphocytic lymphoma (CLL/SLL) diagnosed 19 months earlier, in first relapse after 4 cycles of RFC (Fludarabine, cyclophosphamide and Rituximab), no inborn condition of note.

**Organomegaly**
No hepatomegaly, no splenomegaly, enlarged lymph nodes (diffuse lymphadenopathy), no central nervous system involvement

**Blood**
- **WBC**: 1.5 X 10^9/l
- **HB**: 10.3g/dl
- **Platelets**: 52 X 10^9/l
- **Bone marrow**: Aspirate and immunophenotype study: 69.8% lymphoid cells, CD19+, CD5++, CD11c+, CD23++, cIgM+, cIlambda+.

**Cyto-Pathology Classification**

**Immunophenotype**
Small lymphocytic lymphoma/chronic lymphocytic leukemia (SLL/CLL)

**Rearranged Ig Tcr**
Not done

**Pathology**
Lymph node biopsy showed SLL/CLL, CD20, CD23, CD5, CD43 and BCL2 positive; CD10 and Cyclin D1 negative and Ki-67 positive in 25% of neoplastic cells.

**Electron microscopy**
Not done

**Diagnosis**
Chronic lymphocytic leukaemia/Small lymphocytic lymphoma (CLL/SLL) with high Ki-67 index.

**Survival**

**Date of diagnosis**: 03-2010
**Treatment**: Bendamustine +Rituximab (2 cycles).
Complete remission: no
Treatment related death: +
Status: Dead; Last follow up 07-2010.
Survival: 4 months

**Karyotype**

**Sample:** bone marrow cells.
**Culture time:** 72 hours with TPA (o-tetradecanoyl phorbol-13-acetate).
**Banding:** G

**Results:**
(using ISCN): 44,XY, t(1;6)(p35;p25), der(4)(q21), -9, add(17)(p13), -21, +mar[6]/46,XY[14]

**Karyotype at Relapse:** not done

**Other molecular cytogenetics technics:**
Fish using deletion probe XLP53 (MetaSystems) confirms 17p13/P53 locus deletion nuc ish(D17Z1x2,p53x1)[76/100]

**Other Molecular Studies**

**Technics:** not done

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Partial karyotypes, G-bands, showing the t(1;6)(p35;q21), del(4)(q21), and add(17)(p13).

Fish interphase study using probes D17Z1 (green) and p53 (orange) showing 2 green signals and 1 orange signal, confirming p53 deletion.
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**Comments**

Until now, 16 patients with CLL and t(1;6)(p35;p25) were described. 8 of these patients were described by Michaux et al. in 2005, showing that this rearrangement was associated with bad prognosis: unmutated B-CLL and evolution to diffuse large B-cell Lymphoma (DLBCL). Our group also described in 2007 a case of atypical CLL with evolution to aggressive B-cell Lymphoma. In the case reported herein, clinical and pathological evolution was associated with the detection of t(1;6) as part of complex karyotype including deletion of p53. Although no transformation to DLBCL was seen, increase in proliferation rate in lymph node biopsy (Ki-67 increase from less than 10 to 25%) was detected, associated with bad prognosis and short survival.

**References**


This article should be referenced as such: