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A new case of t(1;11)(q21;q23) in a child with M1 ANLL

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Clinics
Age and sex : 21 months old old male patient
Previous history : no preleukemia; No previous solid tumors.; prematurity (born at 33 weeks of gestation),
acute leukemia in the maternal grand-father
Organomegaly : no hepatomegaly; no splenomegaly; no enlarged lymph nodes; no central nervous system involvement

Blood
WBC : 10.6 x 10^9/l; Hb : 7.1 g/dl; platelets : 71 x 10^9/l; blasts : 8%

Survival
Date of diagnosis: 29.04.04
Treatment : -one intrathecal injection (including methotrexate, steroids, and cytosine-arabinoside).
Complete remission : None
Relapse : -
Survival : 8 mths +

Karyotype
Sample : bone marrow; culture time : 24h and 72h; banding : G and R banding
Results : 46,XY,t(1;11)(q21;q23)[6]
Other molecular cytogenetics technics : Fluorescence in Situ Hybridization was performed using a MLL dual color, break apart rearrangement probe and a chromosome 1 specific labeled spectrum green painting probe (ABBOTT).

Other molecular studies
results : MLL multiplex PCR [t(4;11), t(6;11), t(9;11), t(10;11), t(11;19)]; negative. ETO/AML1 : negative. MYH11/CBFB : negative. FLT3 mutations research : negative.

Other findings
results: Meningeal puncture: no blastic cells infiltration.

**Figure 1:** Bone marrow (MGG stained): Myeloblasts with numerous azurophilic granulation and prominent nucleus.

**Figure 2:** Partial karyotype (R bands) showing the t(1;11)(q21;q23).

partial karyotype showing the t(1;11)(q21;q23)(R bands)
To our knowledge, 26 cases of translocation t(1;11)(q21;q23) involving the genes AF1q (1q21) and MLL(11q23) have already been described in the literature. All cases were acute leukemia except for one secondary myelodysplastic syndrome. In 14 cases (57%), the translocation was the sole abnormality. The other 12 cases showed additional chromosomal abnormalities. This rare translocation is preferentially associated with AML4, AML5, or biphenotypic leukemia of infants or children. Only one case of AML M1/M2 in a 3-year-old female was reported with t(1;11)(q21;q23) as the sole karyotypic change. We present here the second case of AML1 with t(1;11)(q21;q23). The child is in complete remission at 6 months after diagnosis.

**Internal links**

Atlas Card  [t(1;11)(q21;q23)]

**Bibliography**

**t(1;11)(q21;q23)**

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Contributor(s)
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