Case Report Section
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Translocation t(8;9)(p12;q33) detected in cALL: A case report
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Clinics

Age and sex
85 years old female patient.

Previous history
No preleukemia. No previous malignancy. No inborn condition of note.

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

Blood

Blasts: 49%

Cyto-Pathology Classification

Cytology
cALL

Immunophenotype
Positive for CD10, CD19, HLA-DR, CD34 and cytoplasmatic TdT; CD20 is expressed on 1% of the cells; additionally, there is abnormal coexpression of CD33 and CD13.

Rearranged Ig Tcr: no
Pathology: -
Diagnosis: cALL

Survival

Date of diagnosis: 02-2010
Treatment: Vincristine and Dexamethasone
Complete remission: no
Treatment related death: no
Relapse: no
Status: Death.
Survival: 8 months

Karyotype

Sample: Bone marrow
Culture time: 24/48 h
Banding: G-banding
Results
46,XX,t(8;9)(p12;q33)[14/20]

Other molecular cytogenetics technics
FISH with WCP probes for chromosomes 8 and 9; FISH with BAC clones RP11-513D5 and RP11-359P11.

Other molecular cytogenetics results
FGFR1-CEP110-fusion detected using RT-PCR.
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Comments

Here, we report a rare case of a \( t(8;9)(p12;q33) \) in a patient with c-ALL. The peripheral blood was infiltrated with CD10+, CD19+, CD34+, HLA-DR+ as well as cytoplasmatic TdT+, CD79a+ and CD22+ lymphoblasts. Additionally, cells showed abnormal coexpression of CD33 and CD13. Chromosome banding analysis revealed a 46,XY,t(8;9)(p12;q33) karyotype, and a FGFR1-CEP110 fusion transcript was detected by reverse transcription-polymerase chain reaction (RT-PCR). Patients with a \( t(8;9)(p12;q33) \) that have been published so far showed either a myeloid or biphenotypic malignancy, often presenting a myeloproliferative neoplasia or a myeloproliferative neoplasia in transformation (Chaffanet et al., 1998; Guasch et al., 2000; Sohal et al., 2001; Yamamoto et al., 2006; Mozziconacci et al., 2008; Park et al., 2008). Contrary to previous reports we did not observe myeloid involvement in our patient. Both the EGIL criteria for biphenotypic acute leukemia as well as the WHO classification for mixed phenotype acute leukemias are not met here (Bene et al., 1995; Swerdlow et al., 2008). Thus, this is -to our knowledge- the first description of a patient with a \( t(8;9)(p12;q33) \), who presented solely with a lymphoid malignancy.

References


Chaffanet M, Popovic C, Leroux D, Jacrot M, Adélaïde J, Dastugue N, Grégoire MJ, Hagemeier A, Lafage-Pochitaloff M, Birnbaum D, Pébusque MJ. \( t(6;8), t(8;9) \) and \( t(8;13) \) translocations associated with stem cell myeloproliferative disorders have close or identical breakpoints in chromosome region 8p11-12. Oncogene. 1998 Feb 19;16(7):945-9

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