

Case Report Section

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Isolated trisomy 2 is non-random and may be found in myelodysplastic syndrome and in acute myeloblastic leukaemia. Case 2

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Clinics

Age and sex: 69 years old female patient.
Previous History: no preleukemia; no previous malignant disease; no inborn condition of note.
Organomegaly: no hepatomegaly; no splenomegaly; no enlarged lymph nodes; no central nervous system involvement.

Blood

WBC: $1.7 \times 10^9/l$; Hb: 7.4 g/dl; platelets: $45 \times 10^9/l$.
Bone marrow: 85% blasts.

Cytopathology classification

Immunophenotype: CD34+, CD13+, CD33+ HLA-DR+, CD14-, CD15-, CD19-, CD10-, CD2-.
Precise diagnosis: AML-M1.

Survival

Date of diagnosis: 12-2000
Treatment: Daunorubicin and cytosine-arabioside.
Complete remission was obtained.
Treatment related death: Died after several septicemic episodes during bone marrow suppression treatment.
Relapse: -
Status: Dead 05-2001.
Survival: 12 months.

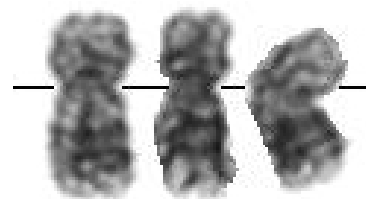
Karyotype

Sample: Bone marrow; Culture time: 24/48h; Banding: GTG.

Results: 46,XX, [4]/ 47, XX,+2 [18]

Other molecular cytogenetic technics: FISH using the BAC probe RP11-375H16 (2q23.1).

Other molecular cytogenetics results: 20% normal metaphases and 80% of metaphases with 3 chromosomes 2.



trisomy 2 (case 2)

G-banding karyotype revealed isolated trisomy 2 of case 2.

Comments

Trisomy 2 as single chromosomal abnormality appears to be associated with MDS on the contrary to AML where it is frequently encountered in association to other unbalanced chromosomal abnormalities [ref.1].

This observation therefore suggests that trisomy 2 could be an early genetic abnormality in MDS. Indeed, from the 9 MDS/AML described cases with isolated trisomy 2 (including our 2 cases), 7 cases revealed isolated trisomy 2 at MDS presentation. MDS in transformation was diagnosed among the 4 oldest patients, though age does not carry prognostic significance according to the IPSS [ref.2]. 5 of the 9 published cases evolved to acute leukaemia.

References

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