

CASE REPORTS in HAEMATOLOGY (Paper co-edited with the European LeukemiaNet)

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 yrs 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%

Survival

Date of diagnosis: 12-2000

Treatment : Daunorubicin and cytosine-arabinoside

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 : 24H and 48 H; banding : GTG

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

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

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.

Internal links

Atlas Card [+2 or trisomy 2](#)

Case Report [Isolated trisomy 2, Case 1](#)

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Case 2. Atlas Genet Cytogenet Oncol Haematol. September 2006 .

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