

Case Report Section

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A new case of t(16;21)(q24;q22) in a secondary AML-M2 following breast cancer therapy

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Clinics

Age and sex: 61 years old female patient.
Previous history: no preleukemia; no inborn condition of note; Breast cancer diagnosed in 2002, treated with radical mastectomy, chemotherapy with cyclophosphamide, epirubicin, 5-fluoro-uracil, radiotherapy.
Organomegaly: no hepatomegaly; no splenomegaly; no enlarged lymph nodes; no central nervous system involvement.

Blood

WBC: $2.4 \times 10^9/l$; Hb: 10.7 g/dl; platelets: $48 \times 10^9/l$; blasts: 2%
Bone marrow: Neutrophils 0.05%; Band cells 0.05%; Metamyelocytes 0.13%; Myelocytes 0.02%; Promyelocytes 0.02%; Blasts 0.51%; Late normoblasts 0.13%; Plasma cells 0.01%; Lymphocytes 0.05%; Monocytes 0.01%; Eosinophils 0.02%.

Cytopathology classification

Cytology: AML-M2.
Immunophenotype: Positive for HLA-DR, CD34, CD117, CD13, CD33, MPO, CD56 and CD19; Partial Tdt; Negative for CD7.
Precise diagnosis: Hypoplastic AML, therapy related.

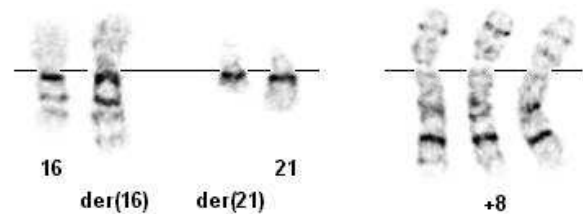
Survival

Date of diagnosis: 04-2005.
Treatment: Three cycles of AraC and Danuribicin; related bone marrow transplantation planned for September 2005.

Complete remission: Yes, 05-2005
Status: Alive (07-2005)
Survival: 3 months

Karyotype

Sample: Bone marrow; Culture time: 24h; Banding: GTG;
Results: 47,XX,+8,t(16;21)(q24;q22)[13]/46,XX[3]



Partial karyotype showing the t(16;21) and a +8

Comments

The t(16;21)(q24;q22) is mainly found in t- MDS /t-AML (14/16 cases (1-10)), following breast cancer therapy (five cases (7,8,10)), lymphoma (four cases), Hodgkin's disease, lung and oviductal cancers and AML-M3 (one case each). Trisomy 8, the secondary change found in the current case, is also reported in most if not all patients with previous breast cancer (7,8,10).

To note, three out of five patients had lymphoid positive antigens (5,7, current case).

All of the nine patients whose treatments were reported (3-9), plus the current case, were treated with a combination of alkylating agents and topoisomerase II inhibitors, +/- radiotherapy.

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