**CASE REPORTS in HAEMATOLOGY**  
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**A de novo AML with a t(1;21)(p36;q22) in an elderly patient**

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**Clinics**  
Age and sex: 81 yrs old male patient  
Previous history: no preleukemia; -no inborn condition of note  
Organomegaly: no hepatomegaly; no splenomegaly; enlarged lymph nodes; no central nervous system involvement

**Blood**  
WBC: 3.3 x 10^9/l; Hb: N/A g/dl; platelets: 16 x 10^9/l; blasts: 2% (CD34+ myeloblasts)  
Bone marrow: 20% myeloid precursors, 16% erythroid precursor, 6% lymphocytes, 55% blasts and 2% plama cells.

**Cyto pathology classification**  
Cytology and immunophenotype: AML M0 CD33+, CD13+, MPO-, CD41-, CD61-, CD203c- (5% of all blast).  
Rearranged Ig Tcr: N/A  
Precise diagnosis: Immunophenotype consistent with the presence of myeloid precursors. Negative markers (CD61,CD41,CD203c) associated with megakaryocytic differentiation; AML M0.

**Survival**  
Date of diagnosis: 01-2005  
Treatment: Hydroxyurea and supportive care.  
Complete remission: None  
Treatment related death: -  
Relapse: Patient never achieved complete remission.  
Status: Dead 02-2005  
Survival: 1

**Karyotype**  
Sample: Bone marrow; culture time: 24; banding: GTG  
Results: 46,XY,t(1;21)(p36;q22)[15]  
Other molecular cytogenetics technics: FISH with LSI (TEL/AML1 ES Dual Color Translocation Probe (Vysis, Inc.) on metaphases (see Fig 2).  
Other molecular cytogenetics results: Ish der(1)(dimAML1+), der(21)(dimAML1+).
Partial GTG-banding karyotype showing t(1;21)(p36;q22) (a)
Partial FISH analysis showing the AML1 hybridization signals on derivative chromosomes 1 and 21, and on the normal chromosome 21 (b)

Comments
The t(1;21)(p36;q22) so far reported, is generally observed as the sole chromosomal abnormality (5/6), and is mostly a de novo aberration (4/6). The short survival (one month) of our case, confirms the poor prognosis in these patients carrying this chromosome abnormality.

Internal links
Atlas Card  t(1.21)(p36;q22)

Bibliography
Identification of truncated RUNX1 and RUNX1-PRDM16 fusion transcripts in a case of
t(1;21)(p36;q22)-positive therapy-related AML.
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Preiss BS, Kerndrup GB, Pedersen RK, Hasle H, Pallisgaard N; Lymphoma-Leukemia Study Group of the Region of Southern Denmark.

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