Isolated trisomy 2 is non-random and may be found in myelodysplastic syndrome and in acute myeloblastic leukaemia. Case 1

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Clinics
Age and sex: 58 yrs old male patient
Previous history: preleukaemia; 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: 1.9 x 10^9/l; Hb: 9.1 g/dl; platelets: 282 x 10^9/l;
Bone marrow: 1.4 % blasts%

Survival
Date of diagnosis: 1979
Treatment: red cell transfusion monthly
Complete remission was obtained
Treatment related death: -
Relapse: -
Status: A
Survival: 26 yrs +

Karyotype
Sample: Bone marrow; culture time: 24H and 48 H; banding: GTG
Results: 46,XY, [6]/ 47, XY, +2 [14]
Other molecular cytogenetics technics: FISH using the BAC probe RP11-375H16 (2q23.1)

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 2

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Written 09-2006
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**Citation**

This paper should be referenced as such:

URL: http://AtlasGeneticsOncology.org/Reports/02RocheID100015.html

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