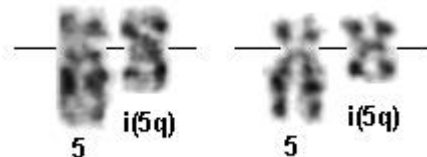


i(5)(p10) in acute myeloid leukemia

Identity

Note The isochromosome of the short arm of chromosome 5 - i(5)(p10) - has only been described in a few cases of myeloid leukemia. So far it has not been described as the sole abnormality. In four cases the i(5)(p10) was accompanied by trisomy 8, in three cases the i(5)(p10) occurred in addition to two normal chromosomes 5. An i(5)(p10) was also described in cases with a complex aberrant karyotype



i(5)(p10) G-banding - Claudia Schoch

Clinics and Pathology

Phenotype / cell stem origin	Classified as AML , predominantly AML M5a
Etiology	Unclear
Epidemiology	Mean age 40-50 yrs
Clinics	Blood data WBC $8-40 \times 10^9/l$, platelet counts $15-114 \times 10^9/l$
Cytology	Typical cytomorphological features of AML M5a with more than 80% of bone marrow cells being monoblasts showing strong cytochemical reaction with nonspecific esterase. Expression of CD33 and CD65.
Treatment	According to AML protocols.
Prognosis	Unclear due to low number of cases, seems to be poor.

Cytogenetics

Cytogenetics Morphological	Isochromosome of the short arm of chromosome 5
Additional anomalies	trisomy 8 , gain of chromosome 5

Genes involved and Proteins

Note Gene dosage effect of genes located on the short arm of chromosome 5?

External links

Other database [i\(5\)\(p10\) in acute myeloid leukemia](#) [Mitelman database \(CGAP - NCBI\)](#)

To be noted

Additional cases are needed to delineate the epidemiology of this rare entity:

you are welcome to submit a paper to our new [Case Report section](#).

Bibliography

Chromosomal breakpoints and changes in DNA copy number in refractory acute myeloid leukemia.

El-Rifai W, Elonen E, Larramendy M, Ruutu T, Knuutila S.

Leukemia 1997;11: 958-963.

Medline [9204975](#)

Cytogenetic analysis of de novo acute leukemia with trilineage myelodysplasia in comparison with myelodysplastic syndrome evolving to acute myeloid leukemia.

Tamura S, Takemoto Y, Hashimoto-Tamaoki T, Mimura K, Sugahara Y, Senoh J, Furuyama J-I, Kakishita E.

Int J Oncol 1998; 12:1259-1262.

Medline [9592183](#)

Lack of BCR/ABL reciprocal fusion in variant Philadelphia chromosome translocations: a use of double fusion signal FISH and spectral karyotyping.

Markovic VD, Bouman D, Bayani J, Al-Maghrabi J, Kamel-Reid S, Squire JA.

Leukemia 2000; 14: 1157-1160

Medline [10865986](#)

Gain of an isochromosome 5p: a new recurrent chromosome abnormality in acute monoblastic leukemia.

Schoch C, Bursch S, Kern W, Schnittger S, Hiddemann W, Haferlach T.

Cancer Genet Cytogenet 2001; 127: 85-88.

Medline [11408074](#)

Contributor(s)

Written 02-2005 Claudia Schoch

Citation

This paper should be referenced as such :

Schoch C . i(5)(p10) in acute myeloid leukemia. Atlas Genet Cytogenet Oncol Haematol. February 2005 .

URL : <http://www.infobiogen.fr/services/chromcancer/Anomalies/i5pID1376.html>

© *Atlas of Genetics and Cytogenetics in Oncology and Haematology*
