Atlas of Genetics and Cytogenetics in Oncology and Haematology

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Leukaemia Section

Mini Review

i(5)(p10) in acute myeloid leukemia

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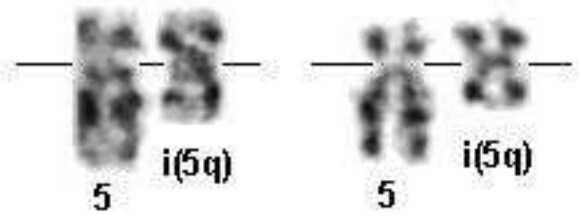
Identity

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 x 10^9l, platelet counts 15-114 x 10^9l.

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?

References

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