idic(7)(q11.2)

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Identity

Other names
Isodicentric 7p

Note
Isodicentric chromosome 7p is a rare chromosomal abnormality characterized by the loss of the majority of chromosome 7q genetic material during recombination and centromeric duplication. In one study, less than 1% of 500 reviewed AML cases with abnormal cytogenetics contained this anomaly.

Clinics and pathology

Disease
Acute myeloid leukemia (AML)

Note
Isodicentric 7p, idic(7)(q11.2) has been reported in elderly patients with AML often as a sole abnormality. In the 4 previously documented cases presence of idic(7)(q11.2) is associated with a favorable response to induction chemotherapy.

Epidemiology
Isodicentric 7p, idic(7)(q11.2) is an extremely rare entity with only 4 cases reported in the literature.

Clinics
The case of AML with idic(7)(q11.2) was a 66 year-old female with pancytopenia and 82% blasts.

Prognosis
The 5 cases of AML with idic(7)(q11.2) have responded favorably to induction chemotherapy. Genes mapped to the short arm of chromosome 7 and known to have oncogenic potential include EGFR, PDGFA, MDR1, T-cell invasion and metastasis inducing locus and aryl hydrocarbon receptor (AHR). The role of these genes in the favorable chemotherapy response is yet to be determined.

References


This article should be referenced as such: