+22 or trisomy 22 (solely?)

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Published in Atlas Database: February 2000

Online updated version: http://AtlasGeneticsOncology.org/Anomalies/tri22ID1042.html

DOI: 10.4267/2042/37601

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Identity

Note: +22 is often associated with inv(16)(p13q22) or its equivalents; the existence of trisomy 22 solely is debated.

Clinics and pathology

Disease

Acute non lymphocytic leukemia (ANLL).

Phenotype/cell stem origin

M4eo ANLL most often in cases associated with inv(16); M4 also, but only in 2/3 of cases, when +22 is apparently without inv(16); and eosinophilia may be missing in the latter case.

Epidemiology

Young age, both in cases with or without inv(16).

Clinics

inv(16) may be at increased CNS relapse when +22 is also present.

Prognosis

A fair prognosis is associated with +22 accompanying inv(16), and with +22 solely, comparable to the prognosis associated with inv(16).

Cytogenetics

Cytogenetics morphological

+22 is a frequent anomaly additional to inv(16), but was not found associated with other anomalies recurrently found in de novo ANLL; +22 may also occur apparently in the absence of inv(16), but cryptic rearrangements of MYH11 (16p13) and CBFB (16q22) have been found in a number of cases; for some authors, +22 indicates the obligate existence of an inv(16); for others +22 solely is a true entity.

Cytogenetics molecular

Is appropriate to exclude or discover the presence of a hidden inv(16), inasmuch as inv(16) is associated with a relatively good prognosis.

Additional anomalies

Anomalies associated with +22 are del(7q) and/or +8, found in 15% of cases each; this percentage is similar in cases with or without inv(16).

References


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