+16 or trisomy 16 (solely)

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Clinics and pathology

Disease

Haematological malignancies.

Note

Trisomy 16 solely has been found in only 14 cases of blood malignancies so far.

Phenotype/cell stem origin

Acute lymphoblastic leukemia (B-ALL in 5 cases, ALL not otherwise specified (NOS) in the 3 remaining cases) (Ahmad et al., 2008; Arana-Trejo et al., 1993; Guillaume et al., 2001; Heerema et al., 1985; Silva et al., 2002; Testa et al., 1985; Tsang et al., 2001; Yamada and Furusawa, 1976), acute myeloid leukemia (one M2-AML, one AML-NOS) (Hda et al., 1996; Li et al., 1983), myelodysplastic syndromes (one case of refractory anemia (RA) and 2 cases of refractory anemia with excess of blasts (RAEB)) (Horiike et al., 1988; Guillaume et al., 2001), myeloproliferative syndromes (idiopathic myelofibrosis, one case) (Whang-Peng et al., 1978), chronic lymphocytic leukemia (2 cases, Ohtaki et al., 1986; Sadamori et al., 1984) and Hodgkin disease (2 cases, Banks et al., 1991; Kristofferson et al., 1987).

Epidemiology

The ALL cases were 4M/3F, aged 2, 5, 18, 24, 32 and 35 years. The myeloid cases were 2M/3F, aged 1, 26, 33, 49 and 61 years.

Prognosis

Survival in myeloid cases was the following: patients deceased at 11, 33, 52 and 60 months (the latter in the idiopathic myelofibrosis case), one patient was still alive at 22 months. Data is even scarcer in the ALL cases (10, 24+, 58+).

Disease

Solid tumours

Note

Trisomy 16 solely is a very rare anomaly in solid tumours; it has been detected in 2 cases of adenocarcinoma of the kidney (Gayrard et al., 2008; Kardas et al., 2005), one adenocarcinoma of the prostate (Verdorfer et al., 2001), in one case of basal cell carcinoma of the skin (Casalone et al., 2000), in a case of squamous cell carcinoma of the vagina (Micci et al., 2003) and in a case of intraductal papilloma of the breast (Lundin et al., 1998).

Cytogenetics

Cytogenetics molecular

To be noted is that a cryptic ETV6/RUNX1 was found in one case of common ALL (Tsang et al., 2001).

Genes involved and proteins

Note

Genes involved in the process giving rise to the trisomy 16, as well as the consequences of trisomy 16 in terms of carcinogenesis are unknown.

References


This article should be referenced as such: