

Leukaemia Section

Short Communication

t(11;14)(p11;q32)

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Clinics and pathology

Disease

Splenic marginal zone B-cell lymphoma (MZBCL)

Phenotype/cell stem origin

CD19+; CD5-; CD22+; CD23-; CD10-; CD25-/+; CD38+; CD11c-; CD103-; FMC7+; surface Ig bright+. The transformed cell represents an IgM+/IgD+ B-lymphocyte deriving from the marginal zone.

Epidemiology

The translocation is rare (<1% of B-cell chronic lymphoid neoplasias).

Clinics

These patients may feature a relatively aggressive clinical course as compared with other cases of splenic MZBCL.

Cytology

Usually, the abnormal lymphocytes in the PB smear are morphologically heterogeneous. The majority of cells are >14 mm in size, with pleomorphism of nuclear shapes, fine chromatin structure and distinct nucleoli. Some lymphocytes with short villi may be present along with larger lymphoid cells and rare prolymphocyte-like cells.

Pathology

The bone biopsy may show B-lymphoid cells of intermediate size with an interstitial infiltration pattern. An intrasinusoidal pattern of growth was also noted.

The spleen specimens display a nodular lymphoid infiltrate of the white pulp by small lymphocytes mixed with larger blast cells with clear cytoplasm, centered on polyclonal follicle centers. Red pulp involvement may occur.

Treatment

The patients may show partial responses to alkylating agent and to multiagent chemotherapy.

Evolution

Transformation into high-grade lymphoma was reported.

Cytogenetics

Cytogenetics morphological

The translocation was described as a balanced t(11;14)(p11;q32).

Cytogenetics molecular

To detect the 14q32 break, the cos-Ca1, cosIg6 and cos3/64 and YAC Y6 were used. Splitting of cosmid signals and Y6 signals has been detected, indicating a break downstream of the IgVH sequences, in the region flanked by cos3/64 and Y6. The gene involved at the 11p11 band is presently unknown.

Additional anomalies

del(7)(q22q32); +12; del(17)(p12). In one case a 7q-chromosome was the primary anomaly, the t(11;14) having found at the time of histologic transformation into high grade lymphoma.

References

Bloomfield CD, Arthur DC, Frizzera G, Levine EG, Peterson BA, Gajl-Peczalska KJ. Nonrandom chromosome abnormalities in lymphoma. *Cancer Res.* 1983 Jun;43(6):2975-84

Whang Peng J, Knutsen T. The Non-Hodgkin's Lymphomas. Pp 277-308. Magrath I (ed). The non-Hodgkin's lymphomas, pp. 277-303; Arnold, London 1997.

Cuneo A, Bardi A, Wlodarska I, Selleslag D, Roberti MG, Bigoni R, Cavazzini F, De Angeli C, Tammiso E, del Senno L, Cavazzini P, Hagemeijer A, Castoldi G. A novel recurrent translocation t(11;14)(p11;q32) in splenic marginal zone B cell lymphoma. *Leukemia*. 2001 Aug;15(8):1262-7

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