

Leukaemia Section

Short Communication

Anaplastic B-cell lymphoma

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Clinics and pathology

Disease

Anaplastic B-cell lymphoma is one of 3 morphologic variants of diffuse large B cell lymphoma (DLBCL). The other 2 variants are immunoblastic lymphoma and centroblastic lymphoma.

Phenotype/cell stem origin

The postulated normal counterpart is a germinal centre B cell or an activated post germinal centre B cell.

The immunophenotype reproduces that of DLBCL, with pan B-cell markers positive, surface and/or cytoplasmic Ig positive in the majority of the cases. The CD30 antigen may test positive, unlike in other DLBCL. CD5 is positive in 10% of the cases. CD10 is expressed in approximately half of the cases.

Epidemiology

It is a rare variant of DLBCL.

Clinics

The disease runs an aggressive course, as all DLBCL.

Pathology

The lymph node section shows large round or oval cells with pleomorphic nuclei resembling Hodgkin's cells or anaplastic cells. It is morphologically indistinguishable from anaplastic large cell lymphoma of T-cell type. A sinusoidal and cohesive growth pattern may be observed.

Treatment

Chemoimmunotherapy using anti CD20 monoclonal antibody rituximab in combination with CHOP or CHOP-like regimens is the standard of care.

Prognosis

Chemoimmunotherapy may cure 40-60% of the cases depending on age and risk factors.

Cytogenetics

Cytogenetics molecular

There are not distinctive cytogenetic or molecular features with respect to diffuse large B-cell lymphoma. The disease is unrelated to ALK positive large B-cell lymphoma which is recognized as a separate entity in the WHO classification (2008).

References

Stein H, Warnke RA, Chan WC, Jaffe ES, Chan JKC, Gatter KC, Campo E.. Diffuse large B-cell lymphoma, not otherwise specified. Swerdlow SH, Campo E, Harris NL, Jaffe ES, Pileri SA, Stein H, Thiele J, Vardiman JW, ed. WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues. WHO press, 4th ed. Lyon: IARC. 2008; pp 233-237.

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