THE PATHOLOGIC SPECTRUM OF AIDS-RELATED NON-HODGKIN’S LYMPHOMAS

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Patients with acquired immunodeficiency syndrome (AIDS) are at increased risk of developing non Hodgkin’s lymphomas (NHL). Current estimates indicate that 5–10% of HIV-infected individuals develop AIDS-related NHL (AIDS-NHL), a life-threatening disease.

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AIDS-NHL share several clinical features, including frequent extranodal presentation, aggressive clinical course, and poor outcome. From a pathologic point of view, AIDS-NHL are characterized by a diffuse growth pattern, cellular pleomorphism, high-grade morphology, and B-cell derivation. Low-grade B-cell and T-cell NHL, which may occasionally develop in the HIV-infected population, are not considered AIDS-related tumors because their incidence has not significantly increased since the start of the AIDS-epidemic.

AIDS-NHL traditionally included systemic and primary brain lymphomas, but nowadays their updated clinicopathologic spectrum also comprises two novel entities, namely primary effusion lymphoma and plasmablastic lymphoma of the oral cavity. Table 1 shows the relative frequency of these clinicopathologic categories.

The present paper deals with recent data concerning clinicopathologic, pathogenetic, and histogenetic aspects of AIDS-NHL.

1. SYSTEMIC NHL

Systemic AIDS-NHL are a heterogeneous group of malignancies displaying a B-cell phenotype. The overwhelming majority of systemic AIDS-NHL fall within three Working Formulation histologic categories: small noncleaved cell lymphoma (SNCCL) which includes classic Burkitt’s lymphoma and Burkitt-like lymphoma; large noncleaved cell lymphoma (LNCCCL); and large cell immunoblastic lymphoma plasmacytoid (IBL-P) (Fig. 1). It has been proposed to classify LNCCCL and IBL-P as a single group under the term ‘diffuse large cell lymphoma (DLCL)’ (Fig. 1), because these subtypes display a certain degree of overlap when classified on pure histologic grounds.2 The category termed DLCL has been further expanded to include also B-cell lymphomas exhibiting anaplastic large cell morphology.2 Notably, CD30 positive anaplastic large cell lymphoma (ALCL), a heterogeneous group of high grade lymphomas at the borderline between Hodgkin’s disease and NHL, have recently been described in association with AIDS.3-5

An intriguing pathologic characteristic common to systemic lymphomas in HIV patients is the occurrence of cases having some overlap between established histologic

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**Table 1.** Clinico-pathologic spectrum of AIDS-related non-Hodgkin’s lymphomas

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Systemic non-Hodgkin’s lymphoma (NHL) (75-80%)</td>
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</tr>
<tr>
<td>Primary central nervous system lymphoma (PCNSL) (15-20%)</td>
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<tr>
<td>Primary effusion lymphoma (PEL) (2-3%)</td>
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<tr>
<td>Plasmablastic lymphoma (PBL) of the oral cavity (2-3%)</td>
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**Figure 1.** Main histologic categories of AIDS-related non-Hodgkin’s lymphomas.