Contribution of DRC-1 and Leu-M5 to Differential Diagnosis in B Cell Lymphomas

W.	Wolfgang	Eisterer
W.	Wolfgang	Hilbe
C.	Christoph	Ludescher
J.	Josef	Thaler

Department of Internal Medicine, University of Innsbruck, Austria

Dr. Wolfgang Eisterer, Department of Internal Medicine, University of Innsbruck, A-6020 Innsbruck (Austria)

An article recently published in this journal [1] discussed the immunohistochemical characteristics of various low-grade non-Hodgkin's lymphomas. From the investigation of 22 cases, the authors concluded that monocytoid B cell lymphoma, mantle zone lymphoma, small lymphocytic lymphoma and hairy cell leukemia (HCL) can be differentiated by a combination of anti-sIgD, DRC-1, Leu-1 and Leu-M5.

We investigated bone marrow biopsies from 260 patients with lymphoproliferative disorders using an immunoperoxidase method on cryostat sections [2, 3]. Our data are in agreement with theirs, especially concerning the fact that the monoclonal antibody (MoAb) Leu-M5 (CD11c) is expressed in HCL in up to 100% of the cases. However, our data (table 1) differ from theirs as we detected Leu-M5 in 16/27 patients with chronic lymphocytic leukemia of the B-cell type (B-CLL) and in 7/12 immunocytoma (LP-IC) patients, which confirms previously published data [4]. In addition to the immunohistological analysis, 42 cases of B-NHL (15 B-CLL, 12 LP-IC, 1 CC, 14 HCL) were also investigated by flow cytometry in order to detect coexpression of Leu-M5 with the malignant clone. In 69% (29/42) of these cases, a Leu-M5 coexpression of weak intensity was seen.

A network of follicular dendritic cells (DRC-1+) was not only demonstrated in centrocytic NHL [CC (7/8)] and centroblastic/centrocytic NHL [CB/CC (4/4)], but also in 32/147 B-CLL and 17/87 LP-IC patients. In B-CLL, DRC-1 positivity was mainly found in association with a nodular pattern of bone marrow infiltration as described by others [5], whereas no such correlation was seen in LP-IC. Furthermore, the authors did not mention MoAb B-Ly7, which has proved exceptionally useful in discriminating HCL from other NHLs [6], also allowing detection of minimal residual disease.

We agree with the authors that immunohistology represents an important diagnostic tool for the classification of low-grade non-Hodgkin's lymphomas, although MoAbs DRC-1 and Leu-M5 seem to be of minor diagnostic value.

Table 1. Immunological phenotype of B-CLL, LP-IC, CC, CB/CC and HCL

MoAb B-CLL LP-IC CC CB/CC HCL

DRC-1 32/147 17/87 7/8 4/4 0/14

Leu-M5 16/27 7/12 0/1 n.d. 14/14

Leu-20	142/147	47/87	8/8	0/4	1/14
Leu-1	145/147	43/87	7/8	0/4	0/14
IL-2R	36/44	11/17	4/8	2/4	14/14

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