

Pleural involvement in a case of monocytoid B-cell lymphoma

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In November 1998 a 53-year old man was admitted to hospital because of a 3-week history of exertional dyspnea. The physical examination demonstrated slight bilateral enlargement of laterocervical and axillary lymph nodes (maximum diameter 1.5 cm) and bilateral dullness to percussion of the lower chest fields. The blood count was normal, LDH level was 517 UI/L (normal value < 440) and a monoclonal IgM κ gammopathy with an IgM serum concentration of 8 g/L was detected. Serology for HIV, HCV and HBV was negative. A chest radiograph showed bilateral pleural effusions occupying the middle and lower left lung and the lower right lung. Computerized tomography did not show other lymphadenopathies in the thorax or abdomen. A thoracentesis demonstrated an inflammatory exudate with a cell count of 1,730/ μ L. The May-Grünwald-Giemsa-stained cytocentrifuge preparation showed cells of medium and large size, oval or kidney-shaped nucleus containing one or two small nucleoli, abundant weakly basophilic cytoplasm, resembling monocytes (Figure 1). These cells expressed B-cell-associated antigens (CD19, CD22), high intensity Smlg and κ monoclonal light chain and lacked CD5, CD10 and CD11c; moreover, they were CD25 and FMC7 positive. These cells were negative for HHV-8 by PCR. A lymph node biopsy demonstrated involvement of marginal, follicular and interfollicular zones by B monocytoid cells (CD 20 and κ positive, CD 30 negative), together with plasmacells and small lymphocytes (Figure 2). Bone marrow biopsy was negative for lymphoma infiltration.

A diagnosis of monocytoid B-cell lymphoma (MBCL) was made. Monocytoid B lymphocytes were first described in the subcapsular sinuses of lymph nodes affected by reactive conditions such as toxoplasma or HIV infections;^{1,2} then, a neoplastic proliferation of monocytoid B-cells was described by Sheibani *et al.*³ as a distinct low-grade B-cell lymphoma, often involving regional lymph nodes and salivary glands but rarely spleen or bone marrow. This kind of lymphoma was associated with middle or elderly age, autoimmune diseases and showed an

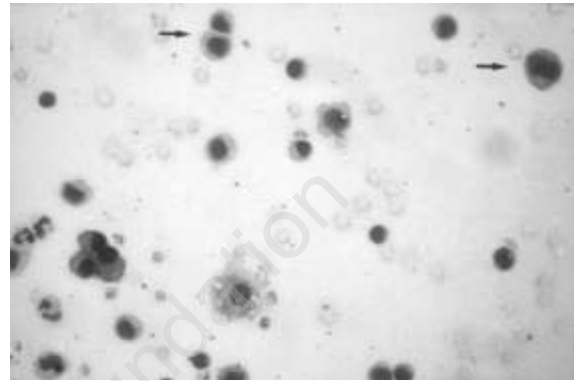


Figure 1. Cytocentrifuge preparation of the pleural fluid, showing some neutrophils, mesothelial cells, small lymphocytes and several monocytoid lymphocytes (indicated by black arrows) (May-Grünwald-Giemsa staining, \times 400 original magnification).

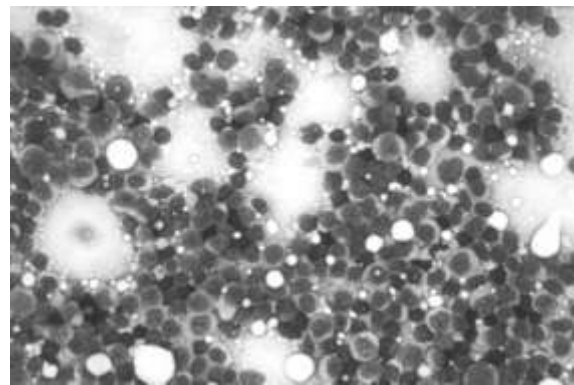


Figure 2. Cytologic examination by apposition of the supraclavicular lymph node involved by MBCL. (May-Grünwald-Giemsa staining, \times 400 original magnification).

indolent course in a few published series.⁴⁻⁶ MBCLs share several common histologic, immunophenotypic and clinical features with low-grade lymphomas of mucosa-associated lymphoid tissue (MALT). Infact, MBCL was described as the provisional nodal subtype of marginal zone lymphoma in the REAL classification. According to other observations,^{7,8} monocytoid B cells do not define a distinct histologic type, but may be only one neoplastic component of different low-grade lymphomas.

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In our patient monocytoid B lymphocytes were detected in a lymph node and in the pleural fluid by morphologic and immunophenotyping examinations; to our knowledge this is the first description of monocytoid B-cells in a pleural effusion.

The patient was treated with weekly thoracenteses; 1-2 liters of pleural fluid were removed each time. He then started on chemotherapy consisting of fludarabine 25 mg/m² and cyclophosphamide 300 mg/m² for 3 days. So far he has received 3 monthly cycles; his superficial lymphadenopathy has disappeared and the pleural effusions have decreased without need for further thoracenteses.

Key words

Monocytoid B-cell lymphoma, pleural effusion

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