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Chronic Lymphocytic Leukaemia in 2 Young Adults

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CHRONIC LYMPHOCYTIC LEUKAEMIA (CLL) is a monoclonal B-cell neoplasm of elderly adults. Few cases have been described among patients 30–50 years old [1] or during childhood [2, 3]. We report two cases of B-cell CLL in adults aged 25 and 27 years.

Patient 1 was a 25-year-old man, hospitalised in December 1989 with diffuse lymphadenopathy. The white blood cell count was 18 × 10^9/l, with 90% small, mature lymphocytes, some plasmacytoid features. Gumprecht cells were numerous.

A bone marrow examination showed a diffuse infiltration with mature lymphocytes. Lymphoid marker studies were performed. The results are shown in Table 1. Immunoglobulin levels showed IgG 430 mg/dl [normal (S.D.) 1400 (200)]. A lymph-node biopsy showed a diffuse lymphocyte infiltration. Abdominal computed tomography revealed the presence of retroperitoneal lymph-nodes.

The patient was diagnosed as having CLL stage II (Rai classification). Within 2 weeks, the peripheral lymphocyte count rose to 40 × 10^9/l, and therapy was initiated with chlorambucil and prednisone. The response was good, with a marked decrease in the size of the lymph-nodes and in the peripheral lymphocytosis.

Patient 2 was a 27-year-old man, hospitalised in December 1989 with severe tonsilitis. On physical examination, both tonsils and several cervical lymph-nodes were markedly enlarged. The peripheral leucocyte count was 20 × 10^9/l, with 88% mature lymphocytes and numerous Gumprecht cells. The bone marrow biopsy showed a diffuse infiltration by mature lymphocytes. Lymphocyte marker studies were performed (Table 1). Serum IgG was 1350 mg/dl. A cervical lymph-node biopsy showed a diffuse lymphocyte infiltration. The patient was diagnosed as having B-type CLL, stage II (Rai).

Within 10 days the patient began to complain of night sweats. The lymphocyte count rose to 45 × 10^9/l. Therapy with chlorambucil and prednisone was then initiated; after several weeks most of the cervical lymph-nodes disappeared and the lymphocyte count dropped to 10 × 10^9/l.

Table 1. Lymphocyte markers (peripheral blood)

Marker	Patient 1	Patient 2
CD20	60	64
CD21	ND	61
CD19	ND	80
CD5	80	80
Ia	70	80
Mouse rosettes	79	80
CD4	10	8
CD8	4	2
TSmIg	0	0

Percentages of markers.
ND = not done.

CLL is typically a disease of the elderly and is rarely reported in the younger population. De Rossi *et al.* [1] analysed the features of 133 CLL patients aged 31–50 years. They emphasised the prognostic value of anaemia, peripheral blood and bone marrow lymphocytosis, and favoured a lymphoma-like pattern of the disease in younger adults. Rare cases of CLL encountered among the paediatric population [2, 3] confirm the aggressive behaviour of the disease in children and adolescents.

The 2 young adults with CLL presented with aggressive disease. Diagnosis of CLL was confirmed by a thorough immunological profile showing strong positive stainings for B-cell markers, including CD5. The patients are exceptional in their youth, being 25 and 27 years old. The youngest patient reported by De Rossi was 31 years old [1]. To our knowledge, no younger adult with CLL has been previously reported in the literature.

Our patients were characterised by the presence of abdominal lymph-nodes, a rapid doubling time of the lymphocytes, plasmacytoid features of the lymphocyte infiltrates, hypogammaglobulinemia (Patient 1), and immediate need for therapy. The occurrence of CLL in very young adults raises the problem of the appropriate therapeutic modalities for this population of patients.

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