Follicular Lymphomatoid Papulosis and Multiple Myeloma

Sir,
We report the first case of lymphomatoid papulosis associated with multiple myeloma. Although such an association may be simply coincidental, it is however intriguing. A possible mechanism explaining the coexistence of T- and B-cell proliferation in the same patient is suggested.

CASE REPORT
A 48-year-old man presented with a history of a self-healing, itching papular eruption, which had been recurrent for 6 years. Diagnosis remained pending and no treatment was given. Fatigue and pain in the bones had started 4 years earlier. At that time, the erythrocyte sedimentation rate was 80 mm/h, with normochromic normocytic anaemia. Serum protein electrophoresis showed monoclonal gammopathy of IgA-k (1.70 g/dl). A quantitative immunoglobulin study showed an elevated IgA of 6.50 mg/ml (normal 0.3 to 3.0 mg/ml) and normal IgM and IgG levels. Radiography revealed osteolytic areas of the skull, pelvis and femur. A bone marrow biopsy specimen showed a marked increase (30%) of plasma cells. These had atypical features. Renal and liver function tests were normal, and Bence Jones proteins were not detected. The diagnosis of IgA-k myeloma was made. Since January 1993, the patient has been treated with 3 MU interferon-alpha on alternate days.
On examination some erythematous, mostly follicular papules, up to 0.5 cm in diameter, were noted on his trunk and limbs. Most of them had central crusts, and several depressed scars were present. Histologically, the epidermis was normal. In the dermis there was a dense inflammatory infiltrate with an evident perifollicular distribution. The infiltrate consisted of lymphocytes, histiocytes, neutrophils, eosinophils and large, atypical mononuclear cells with hyperchromatic and convoluted nuclei. Some mitoses were seen. The follicular epithelium was hyperplastic and infiltrated, without cysts or mucin deposits. Microorganisms were neither seen nor cultivated. The infiltrate was predominantly composed of T-cells with a prominent helper/inducer phenotype (UCHL-1 and CD-4 positive). Only a few scattered cells were positive for Ki-1 (CD-30) and the B-cell marker L-26.

DISCUSSION
Lymphomatoid papulosis is a chronic self-healing eruption, in which recurring crops of necrotic papules display a cytologically malignant infiltrate (1) of activated T-helper/inducer lymphocytes. A significant amount of the infiltrating cells express the Ki-l (CD 30) antigen (2).
An association with malignant myeloma is reported in 10–20% of patients, but whether this represents an independent association or a transformation of one lymphoid disorder into another is unclear.

Multiple myeloma has never been reported in patients with lymphomatoid papulosis. The coexistence of T- and B-cell proliferation in the same patient may, of course, be simply coincidental. We have ruled out any influence of drugs, as our patient was not given any therapy for his lymphomatoid papulosis. A causal mechanism, therefore, may be envisaged. As lymphomatoid papulosis involves T-helper cells, a high T-helper/T-suppressor ratio may also lead to a sustained stimulation of B-cells and plasmocytes. This would cause an abnormal or mutant B-cell clone to escape the normal regulating mechanisms, and eventually to produce a second disease.

REFERENCES

Accepted February 17, 1997.

F. Rongioletti1, G.I. Basso2, A. Sementa3, C. Gambini4 and A. Rebor3
1 Department of Dermatology, University of Genoa, V.le Benedetto XV, IT-16132 Genoa, 2 Department of Hygiene, University of Siena, Siena, 3 Division of Pathology, S. Martino Hospital, Genoa, and 4 Division of Pathology, Gaslini Institute, Genoa, Italy.

Normal Serum Adenosine Deaminase Activity in Mycosis Fungoides

Sir,
Adenosine deaminase (ADA) is an enzyme that catalyzes hydrolytic and irreversible deamination of deoxyadenosine into deoxyinosine and of adenosine into inosine (1). The activity of ADA is very high in lymphocytes, especially in immature and indifferentiated T-lymphocytes. Therefore, some authors consider ADA as a marker of cell-mediated immunity. Some studies have reported an increased ADA activity in lymphocytic tissue and leukemic cells, especially tumors of T-cell origin (2).
The aim of this study was to investigate serum ADA activity in patients with mycosis fungoides (MF) at different stages and the significance of serum ADA activity in determining the course of the disease.

MATERIALS AND METHOD
A total of 25 patients with MF (11 males, 14 females), aged between 18–83 years (median 41), were included. Of these, 3 were in the tumoural, 8 in the plaque and 14 in the patchy stage. All patients were newly diagnosed and neither systemic chemotherapy nor radiation therapy had been administered to the patients. Visceral involvement and Sézary syndrome were not detected clinically or with laboratory studies. Twenty-five sex- and age-matched healthy subjects were included as a control group.

ADA assay
Venous blood of about 2 ml was drawn for ADA estimation, and after centrifugation the serum was stored at – 20 °C. ADA activity

Acta Derm Venereol (Stockh) 77
was measured in serum samples within 10 days, according to the colorimetric method described by Giusti (3).

The Mann Whitney U-test and Students' t-test were used for statistical analysis, as appropriate.

RESULTS

The serum ADA level (mean 7.5 IU/ml) was not significantly different in the control group (mean 7.0 IU/ml) and in the patients in the tumoral, plaque and patchy stages; the mean was 8.0 IU/ml, 7.5 IU/ml and 7.4 IU/ml, respectively.

DISCUSSION

Koizumi & Ohkawara reported an increase in ADA activity in the sera of patients with MF and adult T-cell leukemia (4). The results in the present study conflict with this study. No difference was found between the patients at different stages of MF and the control group. The normal range of ADA in the serum in our laboratory is 5–20 IU/ml. In the present study no patient had a serum ADA activity above this limit. As none of the patients presented with Sézary syndrome in our study, the results we obtained are consistent with the natural course of the disease. Since MF is a primary lymphoma of the skin, originating from helper T-cells, circulating atypical lymphocytes are not generally encountered and serum lymphocyte count alterations are not usually observed. This may be the reason for the normal ADA activity in the study group. The high ADA activity in the serum is explained by these authors as the result of a leakage of ADA to the systemic circulation, without any discrete evidence. In conclusion, our study clearly demonstrates that measurement of serum ADA activity is not a diagnostic or prognostic marker in the follow-up of patients with MF without any visceral involvement or Sézary syndrome.

REFERENCES


Accepted February 3, 1997.

Başak Yalçın¹, Sedef Şahin¹ and Gönenc Ciliv²
¹Departments of Dermatology and ²Biochemistry, Hacettepe University School of Medicine, Ankara, TR-06100 Turkey.

Response to the Letter by B. Yalçın et al.

Sır,

Adenosine deaminase is one of the key enzymes in purine nucleotide degradation. This enzyme exists in most of the human tissues and the activity is high in lymphatic tissues, especially in T-lymphocytes. Elevated adenosine deaminase activity in T-cell leukemia has been reported, and its inhibitor, deoxycoformycin, has been developed as an anti-tumor agent. In some types of leukemia, serum adenosine deaminase activity increases in accordance with the severity of the disease. Although mycosis fungoides rarely involves peripheral blood, tumor cells do invade the skin. An elevated adenosine deaminase activity was observed in 7 of the 8 patients with mycosis fungoides (1). Thus, in order to evaluate the clinical significance of adenosine deaminase in mycosis fungoides, adenosine deaminase activity was measured in sera of 15 patients with mycosis fungoides at various stages (2). The adenosine deaminase activity in the sera of 299 healthy humans was 10.59±3.19 IU/1 (mean ± 1 S.D.) (range 5.3–17.8). The mean adenosine deaminase activity in the sera of the patients in the plaque stage (T2N0M0, IB) was as high as 19.0 IU/1 (range 13.7–21.4), with statistical significance compared with healthy controls (p<0.001). Three tumor stage patients without visceral involvement (T3N0M0, IIB) showed higher levels of adenosine deaminase activity (19.7, 21.5, 24.4 IU/1). An erythrodermic patient (T4N0M0, III), who did not have Sézary syndrome, also had a high adenosine deaminase activity, 28.4 IU/1. Two tumor stage patients with organ involvement (T3N0M1, IVB) exhibited an extremely high adenosine deaminase activity (60.9, 32.2 IU/1). The enzyme activity in the plaque stage was from within the normal range to a slightly higher level. The data of Dr. Yalçın, which showed no difference between patient and control group, might be due to the sensitivity of the measurement. The adenosine deaminase activity in sera showed a tendency to become higher with the extension of the stages. From the results obtained, it is suggested that serum adenosine deaminase activity may reflect the tumor progress in mycosis fungoides.

REFERENCES


Hiroko Koizumi, M.D., Department of Dermatology, Hokkaido University School of Medicine, Kita 15 Nishi 7, Kita-ku, Sapporo, 060, Japan.