Case report

ACTINIC RETICULOID-LIKE CUTANEOUS T CELL LYMPHOMA

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ABSTRACT

According to textbooks mycosis fungoides (MF), Sezary syndrome (SS) and various cutaneous T cell lymphomas (CTCL) are clearly defined nosologic entities. Sometimes cases are encountered which are difficult to assign to one of the above named entities. The case of a 52-year old patient is described with cutaneous manifestations closely resembling the Sezary syndrome with traits of photosensitivity, with malignant cells characteristic of a lymphoma of high grade of malignancy in the lymph nodes and in the skin, but without Lutzner cells in peripheral blood.

Treatment with chemotherapeutics Cyclophosphamid, Adrioblastin and Vincristin, Bleomycin, Oncovin resulted in an only limited success, while the introduction of methotrexate 180 mg once weekly proved to be very efficient.

KEY WORDS

cutaneous T cell lymphoma, actinic reticuloid-like, Sezary syndrome-like, efficient methotrexate treatment.

INTRODUCTION

With the expression "actinic reticuloid" (AR) Ive et al (1) described 10 elderly male patients who developed chronic photosensitivity which, when changes were severe, suggested lymphoma. The eruption begins as a slightly scaly erythema which extends rapidly over the whole head, neck and backs of hands, often also to covered areas. In the established disease there is little scaling and the erythema is accompanied by edematous thickened plaques and smooth topped papules. Erythrodermic episodes were seen in most patients and were not related to seasonal changes. The lack of recognition of photosensitivity by the patients and even by the doctors was due to the absence of seasonal fluctuations and to the presence of lesions on the covered parts of the skin. Confinement to a dark room produced improvement in almost all patients.

Histopathology usually reveals a cellular infiltrate in the papillary dermis composed of lymphocytes and histiocytes, but some eosinophils, plasma cells, giant cells and a small number of atypical mononuclear cells can be found. The occasional epidermal invasion may simulate lymphoma. Toonstra et al (2) described the presence of lymphocytes with convoluted nuclei, blast cells, multinucleated fibroblasts and mitotic figures. Immunophenotyping showed a predominance of suppressor T cells (2).

Ramsay (3) believes that a photosensitization is responsible for the development of AR, halogenated salicylanilides as tetrachlorsalicylanilide and hexachlorophen which are often added as antimicrobial agents to soaps and cosmetics might be the cause. The expression persistent light reactor coined by Wilkinson is also mentioned in this context (4). In such patients a hypersensitivity to light persists for years, while the provoking chemicals remain undetected. The authors who stick to such a definition believe that AR does not progress to definite malignant lymphoma (3).

On the other hand, the "reticuloid" in the name of this disease or rather syndrome suggests that the pathohistology resembled what we used to call reticuloses and today designate as malignant lymphomas (5). Certain authors associate AR with Sezary syndrome the main clinical features of which are: erythroderma with infiltration and scaling of the skin, the face gives often the impression of so called facies leonina, pruritus, peripheral lymphadenopathy, diffuse palmoplantar hyperkeratosis, subungual hyperkeratosis and the presence of cells with cerebriform nuclei (Lutzner cells) in the skin and peripheral blood. Two groups of patients can be distinguished within the Sezary syndrome:

1. patients with erythrodermic cutaneous T cell lymphoma and,

2. patients with AR or chronic actinic dermatitis (6). In the first group the circulating Sezary cells were characterized as predominantly OKT 4 positive T cells (helpers), while in the second group they were predominantly OKT 8 positive (suppressors).

The fact that one of the original 10 AR patients observed by Ive (1) developed leukemia speaks in favor of the hypothesis that AR may evolve in the direction of malignant lymphoma. This short introduction shows that certain questions concerning AR and Sezary syndrome still remain unanswered.

CASE REPORT

The 52-year-old patient enjoyed a good health except for a number of injuries and fractures. In summer 1992 itching appeared on the palms and soles which soon extended to the entire surface of the feet and hands. To the diseased areas of the skin he applied ointments obtained from his general practitioner. Later on, his skin condition worsened so that the whole body became involved, which the patient associated with spraying of pesticides in his vineyard.

In August he was admitted to the Department of dermatology of the General Hospital in Maribor. At that time an almost complete erythroderma was expressed with an enlargement of the axillary and inguinal lymph nodes. A biopsy of the involved skin was read as mycosis fungoides (MF).

On october 6, 1992, he was transferred to the Institute of Oncology in Ljubljana. At that time the whole skin was red with scaling and partially infiltrated. On palms and soles there was a marked hyperkeratosis with rhagadae and the nails were thickened. In the jugular region a non sharply demarcated plaque with a diameter of approximately 2 cm was expressed, while two similar lesions were present in the left anterior axillary fold as well as above the left os ilii. In both axillae fused lymph nodes approximately 4 cm in diameter were palpable. Inguinal and femoral lymph nodes were also enlarged and fused. Lymph nodes on the neck were palpable too. The liver and the spleen were not enlarged. The routine laboratory tests were within normal limits, except for a slight leucocytosis in the peripheral blood. The X ray of the chest was normal. The ultrasound investigation of the abdomen disclosed two hyperechogenic zones in the right liver lobe which were interpreted as hemangiomas. Fine needle aspiration biopsies of the axillary and inguinal lymph nodes as well as of the skin revealed a non-Hodgkin lymphoma. Histopathology of a biopsized axillary lymph node showed a non-Hodgkin lymphoma of a high degree of malignancy: T-cell type, pleomorphic of medium and large cells CD 3 +, MT1 +/-, UGHL 1 -, OPD4-/+, L 26-,MB 2-,BerH 2-. An increased number of venules with high endothelial cells, also a positive immunologic reaction to factor VIII and a relatively

Fig. 1. Actinic reticuloid-like cutaneous T cell lymphoma (CTCL). Erythema and hyperkeratosis with rhagadae on the palms. Thickned nails.

Fig. 2. Actinic reticuloid-like CTCL. Similar changes on the soles.

Fig. 3. Actinic reticuloid-like CTCL. The skin of the face is edematous, reddened and infiltrated.

Fig. 4. Focal lymphoid infiltrates in the dermis are shown with a discrete focus of epidermotropism. H and E.

Fig. 5. Higher power view of the lymphoid infiltrate within the dermis. Most of the lymphoid cells are of the medium size with some nuclear convolutions. Larger cells with more prominent nucleoli are also seen. H and E.

Fig. 6. Lymph node with diffuse infiltration by lymphoma cells of medium size with convoluted nuclei and individual large cells with larger nucleoli. An atypical mitotic figure is also seen. H and E.

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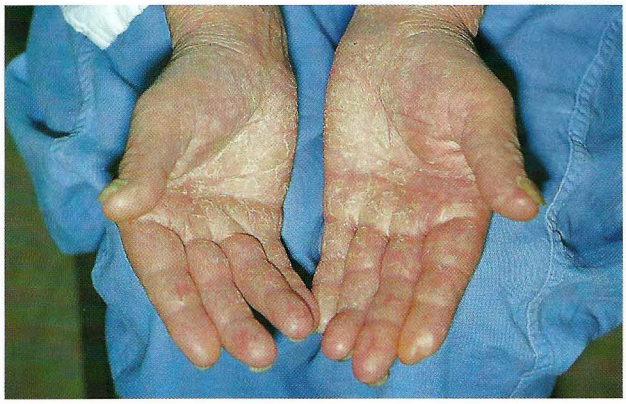

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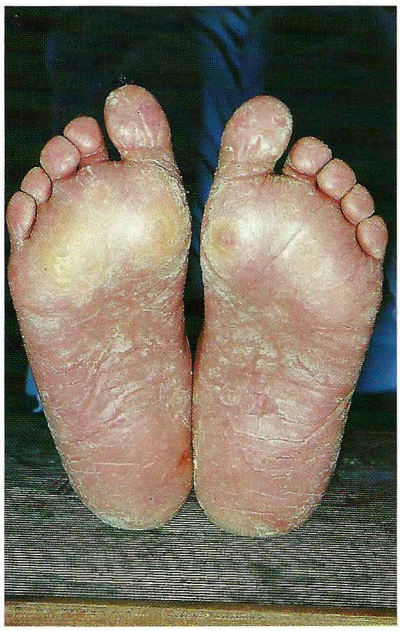

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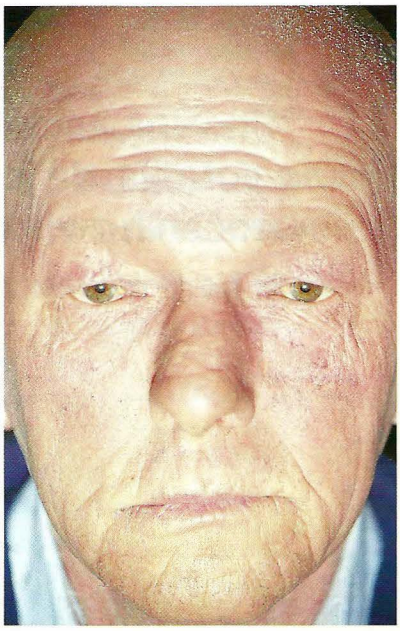

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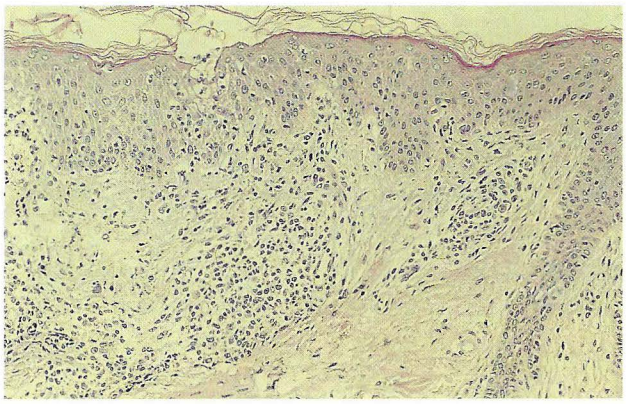

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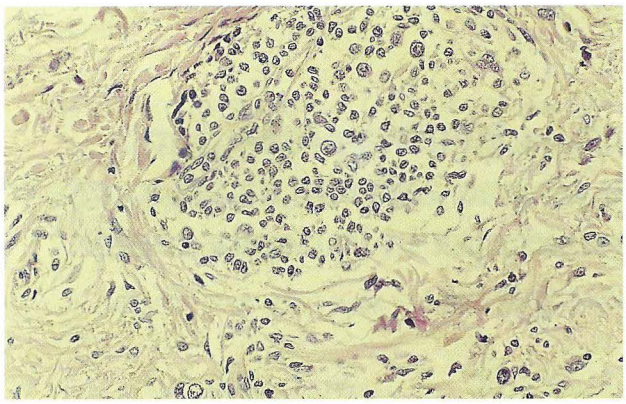

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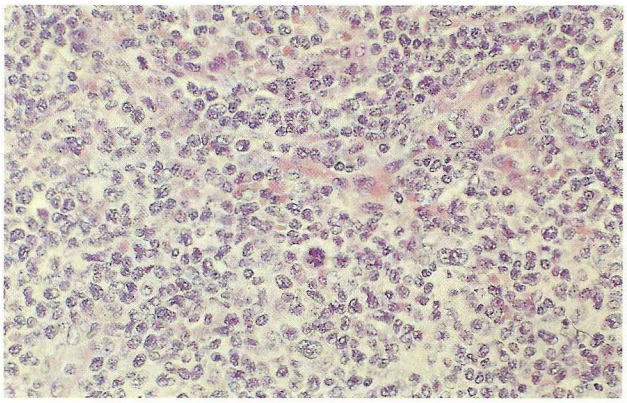

increased number of macrophages/histiocytes (CD 68 positive) confirmed the above mentioned diagnosis. In the skin, focal perivascular lymphoid infiltrates with the same cytological population was found with focal discrete epidermotropism. Histopathology and immunotypisation were interpreted as that of a primary nodal lymphoma with secondary penetration into the skin. The absence of Pautrier's microabscesses excluded MF.

Further assaying of peripheral blood lymphocytes disclosed that 75 % were T lymphocytes and only 1 % were B, out of the T 54 % were CD 4 and 43 % CD 8 giving a CD 4/CD 8 ratio of 1.27. Activity of NK cells was 13 %, the lymphocyte transformation test using PHA and Con A was within normal limits. No Sezary cells were seen.

Treatment may be shortly summarized as follows. On October 20, 1992 a chemotherapy with Cyclophosphamid, Adrioblastin, Vincristin and Bleomycin was introduced according to the CHOP-Bleo scheme. Later on further chemotherapeutics like Endoxan and Oncovin were included into the treatment. After almost three months only a moderate improvement was noted, with persisting erythroderma and the lymph nodes still enlarged. For this reason the previous chemotherapeutic scheme was substituted by 180 mg methotrexate applied in infusion once weekly and prednisolon 40 mg daily. This treatment proved to be far more efficient. On February 4 there was neither erythroderma nor skin infiltration present, the skin was however slightly brownish pigmented. The diffuse hyperkeratoses on the palms and soles as well the rhagadae disappeared, on the soles persisted small areas of hyperkeratosis. It is important to note that the skin of the face remained reddened and on the neck it was still somewhat infiltrated, thus giving the impression of persisting photosensitivity.

DISCUSSION

The skin lesions in our patient were almost identical with the T-cell lymphoma described as Sezary syndrome: erythroderma with scaling, edema and infiltration of the facial skin giving the impression of the so called facies leontina, diffuse hyperkeratosis of palms and soles with rhagadae, subungual hyperkeratosis with deformation of the nails, a diffuse alopecia and an enlargement of the peripheral lymph nodes (5). In the affected skin as well as in the lymph nodes there were small and large cells with relatively large convoluted nuclei and scarce cytoplasma, although typical cerebriform nuclei were not detected.

Studies of the function of the pathological lymphocytes have indicated that in the Sezary syndrome they have the functional capacity to help other lymphocytes in their role of immunoglobulin production and were identified as bearing the membrane markers of T helper cells, OKT 4 positive (7). During the last few years a number of papers on immunophenotypes of the neoplastic cells in T-cell lymphoma appeared (8). Patients in which the CD 8 suppressor/cytotoxic T cells prevailed had an advanced or fulminant disease, so that this phenotype seems to be associated with a poor prognosis (9). Even within these patients two groups may be discerned: one more rapidly progressing (CD 2-, CD 7+) and another rather chronic (CD 2 +, CD 7 -). On the other hand T Cell lymphomas with CD 4 + seem to have even in persons under 30 years of age a relatively good prognosis.

According to the data which can be obtained in the textbooks actinic reticuloid, mycosis fungoides, Sezary syndrome and CTCL of a high degree of malignancy are clearly defined nosologic entities. Clinicians however sometimes encounter cases which are hard to assign to one of these entities. In the literature are even mentioned cases of Sezary syndrome without skin manifestations (11).

The diagnosis of actinic reticuloid-like lymphoma cutaneous T cell lymphoma characterizes best our patient's condition for the following reasons: both the pathologist and the cytologist interpreted definitely the bioptic material as a non-Hodgkin lymphoma of high degree of malignancy, the clinical manifestations resembled the Sezary syndrome; there were no Lutzner cells in the peripheral blood and there was expressed a photosensitivity of a milder degree.

We believe that our patient poses an interesting diagnostical and therapeutical problem. It can be assumed safely that by introducing more sophisticated laboratory methods as genomic DNA analysis, studies of cytokine secretion patterns as well as other methods it will be easier to solve such problems (12, 13, 14).

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