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LETTER TO THE EDITOR

Papuloerythroderma in a patient with cutaneous T-cell lymphoma infected with HTLV-1 virus

Dear Editor,

Papuloerythroderma (PE) is a rare clinical entity characterized by widespread, flat-topped solid papules that are coalesced to form erythroderma, sparing body creases ("deck-chair" sign). The patients usually have tissue and peripheral eosinophilia. PE was originally shown to occur in patients with internal malignancies.[1–3] Drug eruptions also appear as PE.[4] Moreover, the association of PE with cutaneous T-cell lymphoma, including mycosis fungoides and Sézary syndrome, has been reported.[1–3] We present a patient with cutaneous T-cell lymphoma infected with human T-lymphotropic virus-1 (HTLV-1).

A 72-year-old man was referred to our department because of widespread erythematous papular lesions that gradually extended to the whole trunk and extremities for the past three months. The erythema on the abdomen avoided skin folds, exhibiting the deck-chair sign (Figure 1A). Flat-topped solid papules were prominently observed on the thighs (Figure 1B). There was no lymphadenopathy. He had a one-year history of hemodialysis because of chronic renal failure. Blood count revealed leukocytosis (9200/μL) and eosinophilia (11%, 1012/μL). His lymphocyte count was within normal limit, and blood smear showed neither atypical lymphocyte nor flower cell. The serum levels of lactate dehydrogenase and calcium were within normal limits. Western blot analysis for anti-HTLV-1 antibodies revealed the presence of antibodies against env protein and gag protein. Integration of HTLV-1 proviral DNA was observed in the skin tissue specimen by PCR analysis. Skin biopsy showed the infiltration of lymphocytes in the epidermis and the dermis (Figure 1C). The infiltrated lymphocytes had convoluted hyperchromatic nuclei (Figure 1D). By immunohistochemistry, many of the infiltrating cells

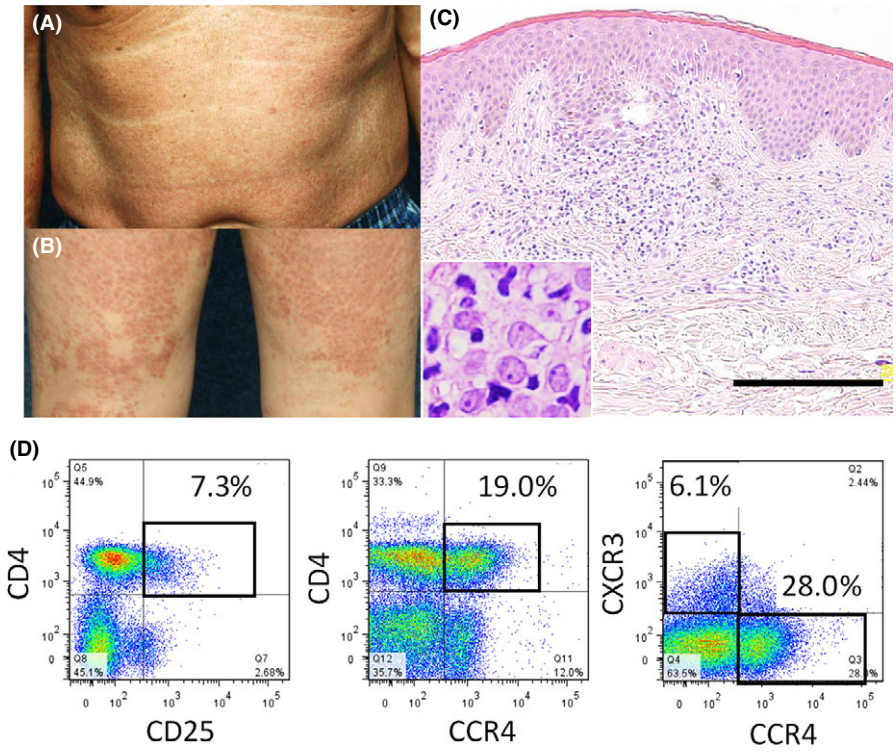

FIGURE 1 Clinical appearance of papuloerythroderma on the trunk (A) and thigh (B), and histopathological appearance (C). Scale bar: 200 μm. Square box shows an image of high power field. (D) Flow cytometric analysis of peripheral blood mononucleated cells. $CD4^+CD25^+$ cells and $CD4^+CCR4^+$ cells comprised 7.3% and 19.0% of peripheral blood mononuclear cells, respectively

were $CD4^+CD25^+$. A PCR analysis of a skin specimen revealed monoclonal rearrangement of T-cell receptor β gene in the regions of Vβ/Jβ1,2, Vβ/Jβ2, and Dβ/Jβ1,2. Using flow cytometric analysis of peripheral blood mononuclear cells (PBMCs), it was found that 7.3% of PBMCs were $CD4^+CD25^+$ and 19.0% were $CD4^+CCR4^+$ (Figure 1D), and no swollen lymph node or involvement of internal organs was observed by whole-body CT scan. The patient was diagnosed as cutaneous T-cell lymphoma with the infection of HTLV-1. The skin lesions were regressed after the treatments with topical corticosteroids and systemic narrowband ultraviolet B. No relapse has been observed for 6 months.

CONFLICT OF INTEREST

The author declare no conflict of interest.

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