Our Dermatology Online

Case Report

Vaccine-induced SCLE refractory to antimalarials in a diabetic patient

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ABSTRACT

Lupus erythematosus (LE) is an inflammatory chronic disorder of the connective tissue. Subcutaneous lupus is an autoimmune disease. Patients with SCLE develop skin rashes or lesions, which affect the most photo-exposed regions, yet in more severe cases, these changes may confluence with each other. Herein, we present the case of a 62-year-old female with a two-year history of SCLE. The first symptoms appeared two days after receiving a flu vaccine. She was treated with antimalarials, yet for two years, the disease only progressed and the condition worsened. Her diabetes was out of control, and she began to have psychosocial difficulties. The condition of other comorbidities should always be monitored, and the medication that will be given should be carefully selected. What is paid little attention to is the psychosocial aspect of the disease, which greatly affects the course of the disease itself and leaves lasting consequences on the patient.

Key words: Lupus erythematosus, Antimalarials, Diabetes, Psychosocial life

INTRODUCTION

Lupus erythematosus (LE) is an inflammatory chronic disorder of the connective tissue. Subcutaneous lupus is an autoimmune disease that does not have a definitive cure. Treatment involves symptom control.

Patients with SCLE develop skin rashes or lesions, which affect the most photo-exposed regions, yet in more severe cases, these changes may confluence with each other. Subacute refers to the depth of inflammation seen in a skin biopsy.

It was first described by Hoffman in 1945, when he reported lupus-like symptoms following sulfadiazine treatment [1]. Drugs are considered to be the cause of SCLE. Commonly used drugs associated with SCLE are antihypertensive drugs such as angiotensin-converting enzyme inhibitors, beta-blockers, and immune modulators. There have been case reports of the development of SCLE in people with malignancies [2]. According to a study on a series of ninety patients over a period of twelve years, 28% of the patients with SCLE had an associated autoimmune connective tissue disease, although the severe sequelae of SLE, such as nephritis, were rare [3].

Depending on the severity of the clinical picture, SCLE treatment includes local and systemic therapy. Topical corticosteroids are used, calcineurin inhibitors such as tacrolimus and pimecrolimus, oral antimalarial medications (hydroxychloroquine and chloroquine), oral immunosuppressive medications (methotrexate, mycophenolate mofetil, azathioprine), and anti-inflammatory drugs (dapsone, sulfasalazine).

There is no way to prevent subacute cutaneous lupus, yet it is important to remind patients that avoiding sun exposure may reduce frequent exacerbations and the severity of the clinical picture.

CASE REPORT

Herein, we present the case of a 62-year-old female with a two-year history of SCLE. The first symptoms

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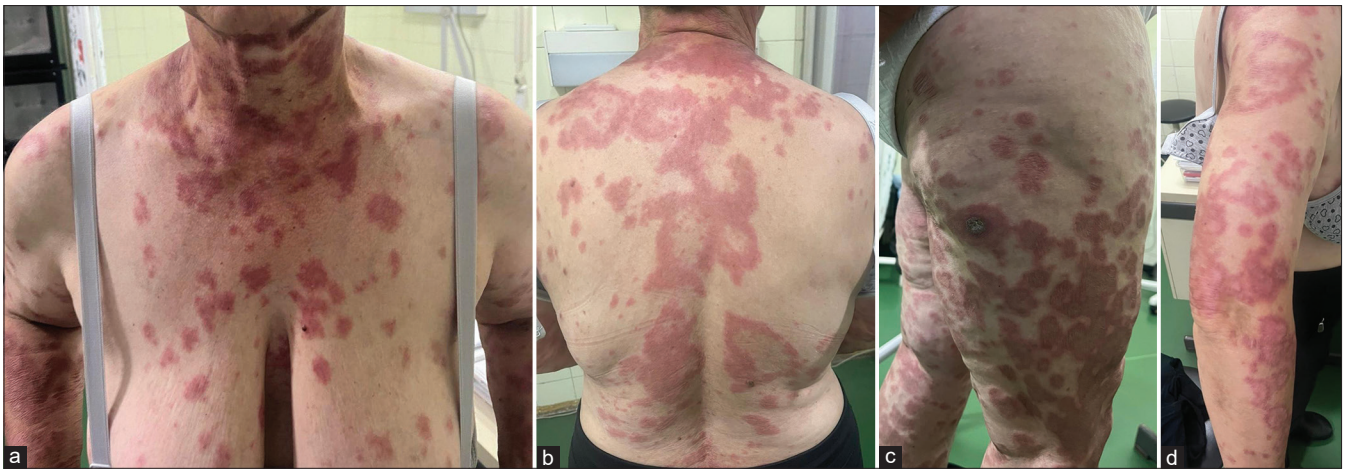

Figures 1: (a-d) Residual hyperpigmentation in places of previous skin changes.

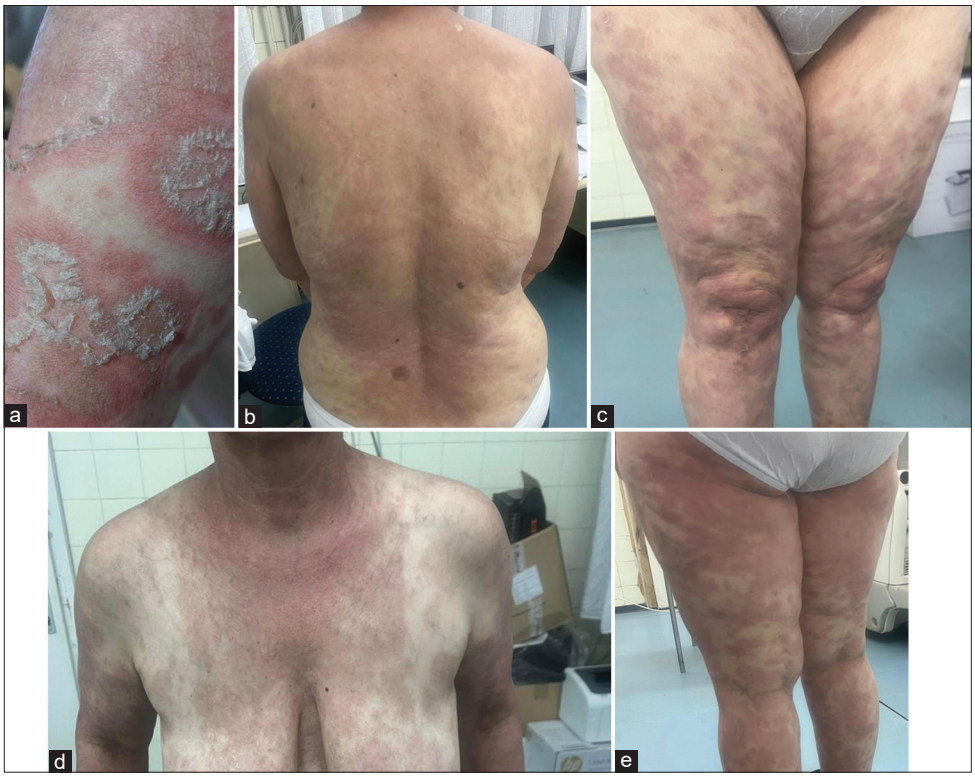

Figure 2: (a-e) Confluent plaques with raised erythematous edges and central clearing, distributed over the whole body and extremities.

appeared two days after receiving a flu vaccine. The patient had annular polycyclic lesions on the trunk.

The patient went to a doctor, and immunological tests were performed. RF 8.5 IU/ml, CRP 0.2 mg/I, AST 50.5 IU/mL, anti-CCP negative. The examined autoantibodies were only with an increase in anti-dsDNA 106.1 IU/ml. A DIF was done, and it was negative. A biopsy showed ortho and focal parakeratosis, parts of moderate atrophy of str.Malpigii and focally invaded by lymphocytes, the basal layer with numerous vacuolarly degenerated cells, supra-epidermal showing a moderately dense lymphocytic infiltrate, which dermally was with perivascular arrangement. The patient was placed on 200 mg hydroxychloroquine tablets, yet an exacerbation of the disease was observed with worsening and spread to the limbs. After ten months, the immunological examination was repeated, and the results were only positive for anti-SSA 36.5 U/mL. Except for a vitamin D deficiency, all other results were normal.

The patient was placed on higher doses of hydroxychloroquine (400 mg per day) and topical

corticosteroids. However, even after two years from the appearance of the first symptoms, she still has not improved even with continued treatment with hydroxychloroquine 400 mg per day, vitamin C, and vitamin D. In the meantime, the patient, due to her external appearance, began to withdraw and did not leave the house, and was ashamed to be in the company of other people. She began to take antidepressants on her own. The woman lost her will to continue treatment and stopped taking care of herself and therapy for other comorbidities.

She came to our clinic for the first time for examination four months previously, being in a very bad dermatological condition with present confluent skin changes affecting most of the limbs and trunk, and she complained of mild itching (Figs. 1a – 1d). The patient came under pressure from her family without any hope that the changes would reverse and that she would be able to move among other people again as before. After the control laboratory examination, it was shown that glucose was unregulated, and there was a need to change the insulin units. We began treatment with a local emollient, local corticosteroid, Acitretin 25 mg tablets, and vitamin D 1000 IU. After a week, she complained of arthralgias and dryness, which is why we increased the use of the emollient and introduced NSAIDs into the therapy (Fig. 1e). After three weeks, the patient came to the examination with almost completely cleaned skin. Only in some places were pigmentations present from the changes, which persisted for two years (Figs. 2a – 2d). Control laboratory tests did not show deviations in liver enzymes, nor changes in other parameters. She received acitretin for six weeks, then continued with emollient and vitamin D alone. What also visibly improved was the patient's mood and her social life. A consultation with a psychiatrist was also made.

CONCLUSION

Antimalarials have played a central role in the treatment of SCLE over the past several decades [4]. Retinoids are a second-line treatment in selective SCLE patients unresponsive to other treatments, especially antimalarials. Hyperkeratotic lesions and verrucous LE give a better response when retinoids are used [5]. The condition of other comorbidities should always be monitored, and the medication that will be given should be carefully selected. What is paid little attention to is the psychosocial aspect of the disease, which greatly affects the course of the disease itself and leaves lasting consequences on the patient.

In the last years, research on the pathogenesis of SLE and SCLE has improved, and several new biologics and small molecules-based treatments have been proposed with promising results on skin disease [5].

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

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