A rare case of eczema herpeticum after subcutaneous immunotherapy

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Running Title: A rare case of eczema herpeticum

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SUMMARY

Eczema herpeticum (EH), also known as Kaposi's varicelliform eruption, is a herpes simplex virus infection that develops mainly on the basis of pre-existing chronic dermatoses such as atomic dermatitis, ichthyosis, seborrheic dermatitis, Darier's disease, pemphigus foliaceus, mycosis fungoides, psoriasis. Its association with atopic dermatitis has been reported most frequently. In this article, an 18-year-old female patient who was diagnosed with eczema herpeticum after subcutaneous allergen immunotherapy for allergic rhinitis in a patient with atopic dermatitis is described. This very rare side effect is presented in the light of current literature.

INTRODUCTION

Allergen immunotherapy (AIT); It is a treatment method that ensures the development of immunotolerance

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against allergens by administering the allergen extract, which is determined to be clinically sensitive, at regular intervals and in increasing doses(1,2). It is a treatment alternative that should be considered in patients who do not have adequate elimination of the allergy, which is especially sensitive, and who do not respond adequately despite appropriate medical treatment, or who need regular drug therapy for a long time. It consists of two main phases, initiation and maintenance phases. Atopic dermatitis (AD) is a chronic, inflammatory skin disease that usually starts in early childhood and progresses with persistent itching .EH is a disease caused by the herpes simplex virus (HSV) in approximately 3% of AD patients.(3)Although local side effects are frequently observed during and after SCIT application, systemic side effects can be encountered, albeit rarely. We aimed to present a young female patient who was diagnosed with AD and developed Eczema herpeticum after SCIT application, in the light of the literature.

CASE

An 18-year-old female patient has been diagnosed with asthma, allergic rhinitis and AD since childhood. The patient, whose asthma was under control, was using nasal antihistamine, nasal steroid and oral levocetirizine + montelukast combination for allergic rhinitis.

In the skin prick test (SPT) of the patient, who did not have any features in the physical examination, sensitivity to mite, grass pollen, dog, rye was detected. It was decided to start subcutaneous allergen-specific immunotherapy for grass pollen and house dust mite before the season, for the patient who did not want to use drugs for a long time. In blood tests performed before treatment, hemogram, kidney and liver function tests were normal. Total IgE: 1078 IU/ml, specific IgE (D1 ptero): 42.7 KU/L, specific IgE (D2 farin): 77.1 KU/L. Allergen-specific immunotherapy was initiated for grass pollen and house dust mite before the season in accordance with the simultaneous cluster dose scheme. For pollen, 0.1 ml was injected from bottle A (1,000 TU/ml), and for house dust mite 0.7 ml was injected from bottle no. 1 (50 TU/ml).

A day or two after the first injection, the patient started with widespread redness, itching and burning complaints on the face and cheeks, and within a week, dry lesions occurred on the face of the patient (Figure 1). The patient's complaint of atopic dermatitis increased and the lesions were thought to be infected. AIT was stopped. The patient was consulted with dermatology. Anti-HSV Type 1 IgM was found positive in the blood test, and IgG was negative. There was no growth in the wound swab culture. With the diagnosis of eczema herpeticum, amoxicillin+clavulanic acid 1000 mg 2*1 oral, acyclovir 250 mg 3*1 iv, acyclovir topical treatment was started and completed in 10 days. Skin lesions gradually regressed in the patient's follow-ups. The lesions disappeared completely after about 1 month (Figure 2). AIT was not repeated for allergic rhinitis, medical treatment was continued.

DISCUSSION

AD is a chronic relapsing skin disease of complex etiology, characterized by an erythematous and pruritic rash that often affects children. AD prevalence is between 5 and 20% (4). AD is usually associated with a high serum total IgE level and a personal or family history of atopy that includes a group of diseases such as eczema, asthma, and allergic rhinitis. EH, also known as Kaposi's varicelliform eruption, is a rare complication that occurs in less than 3% of patients with atopic dermatitis. The most common causes of EH are herpes simplex virus (HSV) type 1 and type 2.it has also been shown that coxsackie virus A16 and vaccinia virus play a role in the pathogenesis of EH (5).EH may spread to disseminated or fatal course with visceral involvement in some patients. The mortality rate is between 1 and 9% (6). Severe eczema, high serum total IgE levels, a history of food allergy or asthma appear to be predisposing factors (7). Although the disease can be seen clinically wherever there is epithelial barrier damage in the body, it is most commonly located in the face and neck region. The presence of common worms with a diameter of 2-3 mm is a clue for diagnosis. Fever and regional lymphadenopathies may accompany the lesions (8). Similar to the literature, common worms on the face were observed in our patient, but no fever or lymphadenopathy was observed. Electron microscopy, viral culture and PCR can be used for diagnosis. In the differential diagnosis, allergic contact dermatitis, impetigo and histiocytosis, especially varicella zoster, should be considered (9). In the treatment of EH, systemic antiviral and antibacterial therapy should be planned in addition to topical antiviral and antibacterial therapy, depending on the extent of the lesion (10). In our patient, oral amoxicillin + clavulanic acid and acyclovir and topical acyclovir treatment were given due to the widespread involvement in the face area. The lesions were completely controlled within a month. There is no data in the literature on EH after AIT. Since there is no data on eczema herpeticum after AIT in the literature, we wanted to share a very rare case.

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