

Localized eczema herpeticum with unilateral ocular involvement

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S U M M A R Y

We report a case of eczema herpeticum with unilateral ocular involvement in a 16-year-old boy. The patient has had a mild form of atopic dermatitis (AD) since early childhood. Why AD patients are prone to herpes simplex virus (HSV) infections is still unclear. Ocular pathologic findings in these cases are rarely reported.

Introduction

Eczema herpeticum (EH) or Kaposi varicelliform eruption is a viral infection (HSV type 1, HSV type 2, vaccinia virus, or coxsackie virus A16) with disseminated skin involvement that arises from preexisting dermatoses. Most commonly, it is caused by an HSV infection in patients with atopic dermatitis (AD; 1, 2).

In milder cases, the skin symptoms are often restricted to the upper half of the body. Normally, the lower half is affected only in generalized cases (3).

Here we report a case of EH with unilateral ocular involvement.

Case report

A 16-year-old boy was admitted to the Department of Dermatology and Venereology for evaluation of a fever, photophobia, and a painful vesicular and pustular rash on his right periocular area with eyelid involvement. Two days later, he developed a similar

rash on his lips. The patient's mother reported a history of recurrent oral herpes simplex.

The clinical examination showed vesicular, pustular, and crusty lesions on the right periocular area, eyelids, and lips (Fig.1). There were erythematous plaques on his neck and on the flexural surface of the upper extremities. Retroauricular lymphadenopathy was also present.

Laboratory studies showed an erythrocyte sedimentation rate of 25 mm/h. The other hematologic values, serum enzyme levels, liver function tests, total protein, blood proteinogram (alpha-1-, alpha-2-, beta-, and gamma-globulins), urea, creatinine, and blood sugar levels were all normal. His IgE serum level was high, at 62 mg/dL (normal range 1.7–45 mg/dL). Albumin and a few leucocytes and erythrocytes were detected in the urine.

Viral typing showed HSV type 1.

An ophthalmologic examination revealed herpetic conjunctivitis and keratitis of the right eye. The neurological status was normal.

K E Y W O R D S

eczema herpeticum, atopic dermatitis, ocular involvement, aciclovir



Fig. 1. Vesicular, pustular and crusts lesions on the right periocular area, eyelids and lips.

Treatment with oral aciclovir 800 mg five times a day over a 7-day period improved the patient's condition. Ocular therapy with aciclovir ointment 5% applied five times a day for 7 days was also necessary.

All of the cutaneous lesions cleared within 8 days. The ophthalmologic examination after completing the systemic and local treatment showed complete resolution of the ocular infection. Dendritic scars were not identified in the cornea. Follow-up examinations were carried out in the first, second, third, and sixth months after completing treatment. Recurrences of AD and HSV infection were not noted.

Discussion

EH, sometimes called Kaposi's varicelliform eruption, is usually caused by disseminated HSV infection in patients with preexisting skin disorders. Many skin disorders have been associated with EH, including AD, Darier's disease, thermal burns, pemphigus vulgaris, bullous pemphigoid, ichthyosis vulgaris, mycosis fungoides, and Wiskott-Aldrich syndrome (4). HSV type 1 is the most common etiologic agent of EH. Individuals with AD are particularly susceptible to HSV infections and may develop dissemination EH (1, 2).

These patients usually have severe and bilateral herpetic ocular disease (5).

EH is a serious complication of AD. Why AD patients are prone to HSV infections is still unclear. Recent findings suggest that an increased number of IL-4 secreting cells can be cloned from lesions of AD. IL-4 is a known Th1 cell inhibitor, and so theoretically, it could down-regulate the immune response to HSV by inhibiting the Th1 cells (6). Impairment of cell-mediated immunity in AD was suggested by the limited response to concanavalin A. The reduced numbers of circulating natural killer cells and a decrease in IL-2 receptors during early EH contribute to the susceptibility of children with AD to cutaneous HSV infections (7).

Usually, EH is a widespread viral infection in patients with AD. Localized forms of this condition also occur. Parker and Guin (8) described a 23-year-old woman with primary HSV infection in the areas of her residual atopic hand eczema after contact with her 18-month-old son's oral cavity, which was infected with herpes simplex type 1. The use of aciclovir resulted in rapid clearing of the eruption.

The question of ocular involvement in patients with EH is very interesting, because ocular pathologic findings are rarely reported (3, 9). Sais et al. (5) described a case of herpetic keratitis in a patient with disseminated HSV skin infection. Fifty percent of patients with herpetic blepharoconjunctivitis may have corneal infections. The most common corneal lesions are vascular proliferation, necrosis, scarring, and ulceration.

In conclusion, this is a case of localized EH with unilateral ocular involvement and a very good response to systemic and local therapy using aciclovir.

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