

### **Case Report**

# Multiforme Erythema, In Child, After Repeated Herpes Simplex Infections Case Presentation

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#### Abstract

Background: Erythema multiforme (EM) is a distinctive hypersensitivity syndrome characterized by skin and mucous membrane lesions and in its more severe forms, visceral involvement. The condition varies from a mild, selflimited rash to a severe, life-threatening form. The most common predisposing infection is Herpes simplex, but bacterial infections, fungal diseases and drugs are also implicated. The literature cites that half of children with the rash have recent herpes labialis.

Methods: This is a case report of a 12 years old male patient. The patient had herpes simplex labialis by admission in our clinic. The patient had recurrent infection from 6 years of age with clinical appearance two times per year. In both situations, it was followed by erythema multiforme with one week latter onset. This is the second time that he developed acutely typical target skin lesions, on the face and extensor surfaces of hands. The lesions were distributed symmetrically and spreading centrally.

Conclusions: Although the etiology of EM is still often unknown, infections with herpes simplex virus have been implicated as common predisposing a possible precipitating factor. This case illustrates the association of the occurrence of EM with a herpes simplex virus (HSV) infection and antiviral drugs are necessary to given for future prophylaxis of recurrence of both clinical features.

### Background

Erythema multiforme (EM) was initially described in 1866 by Ferdinand von Hebra as an acute self-limited skin disease, symmetrically distributed on the extremities with typical and often recurrent concentric "target" lesions. The most common predisposing infection is Herpes simplex, but bacterial infections, fungal diseases and drugs are also implicated. The literature cites that half of children with the rash have recent herpes labialis. Herpes simplex infection is the most common cause in young adults and is strongly associated with recurrent EM. The pathophysiology of erythema multiforme is still not completely understood; however, at least herpes-associated erythema multiforme (HAEM) appears to represent the result of a cell-mediated immune reaction associated with herpes simplex virus (HSV) antigen. The immunologic reaction affects HSV-expressing keratinocytes.

#### **Case Presentation**

The presented case is a 12 years old male patient. He was admitted in our inpatient department at the Clinic of Dermatovenerology. The patient had recurrent infection from 6 years of age with clinical appearance, two times per year. In both situations, it was followed by erythema multiforme with one week latter onset. This is the second time that he developed acutely typical target skin lesions, on the





face and extensor surfaces of hands. The lesions were distributed symmetrically and spreading centrally. The patient was treated only with symptomatic therapy. Diagnose was confirmed by skin biopsy. After positive serologic tests for herpes simplex the patient was treated with systemic antiviral and symptomatic therapy. In the last two years the patient didn't develop an eruption of erythema multiforme or herpes labialis.

### Conclusion

Erythema multiforme (EM) is an acute, self-limited, and sometimes recurring skin condition considered to be a type IV hypersensitivity reaction associated with certain infections, medications, and other various triggers [1,2]. Erythema multiforme may be present within a wide spectrum of severity [3]. Erythema multiforme minor represents a localized eruption of the skin with minimal or no mucosal involvement; erythema multiforme major and Stevens-Johnson syndrome (SJS) are more severe, potentially life-threatening disorders [4,5]. The cause of the erythema multiforme (EM) should be identified, if possible [6]. If a drug is suspected, it must be withdrawn as soon as possible [7]. Infections should be appropriately treated after cultures and/or serologic tests have been performed. Herpes simplex infection is the most common cause in young adults and is strongly associated with recurrent EM [8]. Suppression of herpes simplex virus (HSV) can

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authors were the major contributors in writing the manuscript. All authors read and approved the final manuscript.

#### Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

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The YB admitted the patient in the clinic and definite the diagnosis. Other

Figure 3:

Figure 2:

prevent HSV-associated erythema multiforme, but antiviral treatment started after the eruption of erythema multiforme has no effect on the course of the erythema multiforme [9].

Although the etiology of EM is still often unknown, infections with herpes simplex virus have been implicated as common predisposing a possible precipitating factor <sup>(10)</sup>. This case illustrates the association of the occurrence of EM with an HSV infection and antiviral drugs are necessary to given for future prophylaxis of recurrence of both clinical features [11,12].

## **Competing Interests**

The authors declare that they have no competing interests.

### Authors' contributions

