

CASE REPORT

Herpetic Recurrent Oral Erythema Multiforme

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Abstract:

Erythema multiforme is considered as an immunologic disease possibly occurring because of predisposition to certain microorganisms, radiotherapy, systemic diseases, malignancy, and food or drug allergy. Here we report a case of herpes-induced recurrent erythema multiforme primarily manifesting in oral mucosa during first two episodes and third episode was characterized by oral lesions followed by skin lesions and the severity was increased with the subsequent episodes, during each incident we have successfully managed the case.

Keywords: Oral Erythema multiforme, Herpetic, Mucocutaneous, Oromucosal

Introduction:

Erythema Multiforme [EM] is an acute inflammatory mucocutaneous disorder that affects the skin or mucous membrane or both [1]. According to von Hebra, who first described the disease in 1866, the patients with EM should have acraly distributed typical target lesions or raised edematous skin papules with or without mucosal involvement [2]. In 1968, Kenneth described an inflammatory oral disorder with oral lesions typical of EM but without any skin involvement. He reported nine cases seen at the Eastman dental hospital. The common sites involved were lips, cheeks and tongue. These patients had irregular large ulcers with necrotic tags attached to the borders. When lips are involved the typical blood

encrusted lesions are seen. In his series of cases, the typical target skin lesions were seen during the recurrences not in their initial attacks. Many investigators have suggested this as a third category of EM, known as Oral EM (OEM), which is characterized by typical oral lesions of EM but no target skin lesions. OEM is a distinct, but less well recognized variant of EM [4]. It has been reported that even if the primary attacks of OEM are confined to the oral mucosa the subsequent attacks can produce more severe forms of EM involving the skin, hence it is important to identify and distinguish them from other ulcerative disorders involving oral cavity for early management and proper follow up [3,5]. Here we report a similar case of EM primarily manifesting as extensive oromucosal blood encrusted lip ulcerations during first two episodes and third episode was characterized by oral ulcers followed by skin lesions and increase in severity during subsequent episodes.

Case Report:

A 30 year old female patient reported to the Department of Oral medicine and Radiology, College of Dental Sciences, Davangere, Karnataka with extensive ulcers and pain in the mouth for the previous one week. History of present illness revealed that she had fever and sore throat for past three days followed by redness in

the mouth and over the lips. Later vesicles were formed, ruptured leading to bleeding ulcers and encrustations at those sites. The pain was severe and intermittent in nature, aggravated on having hot and spicy food, relieved on taking medications and on rest. She had dysphonia, odynophagia and dysarthria due to pain. Her past dental history revealed incidence of similar type of lesions in the mouth one year back and was treated in our department. Her medical, family and drug history were noncontributory.

The physical examination revealed an ill-appearing febrile patient with cracking and fissuring of lips having hemorrhagic encrusts on the vermilion zone of lips and extensive, multiple, irregular ulcerations with sloughing and erythematous borders on labial, lingual and buccal mucosa extending from retro-commissural area to retromolar region and to the vestibule and soft palate with relative sparing of gingiva. On palpation lesions were highly tender and profuse bleeding was seen with negative Nikolsky's sign (Fig.1a).

Hematological investigations revealed normal complete blood count and Erythrocyte Sedimentation Rate (ESR). Serological test for Herpes Simplex Virus (HSV) was positive. The H/O of sudden onset, negative drug history, with positive serological test for HSV and clinical picture lead to diagnosis of herpes induced recurrent oral erythema multiforme. We didn't subject the patient for biopsy, as patient reported with advanced ulcerations and the histopathologic picture would be nonspecific and non-diagnostic at that stage.

Patient was prescribed Tab. Acyclovir 400mg five times a day for one week, combination of

antipyretics and analgesics (Tab. Brufen 400mg and Tab. Paracetamol 650 mg) four times a day for five days. Tantum mouthwash and topical anesthetic gel were prescribed to use before each meal to aid in food intake. Bland soft diet, avoidance of acidic and spicy food was advised. Healing was noticed on the third day and completely regressed in 12 days (Fig.1b).

Again one year later, the patient revisited us with febrile episode and similar oral lesions. We started with same medications prescribed during the last episode, but after three days, she experienced itching and burning sensation on the skin and developed erythematous macules, later evolved into papules, plaques and finally typical target or iris lesions of erythematous periphery with central necrosis on the face, neck, as well as on the extensor surfaces and palms, which were characteristic of EM (Fig 2a).

Patient was taken for dermatologist consultation and discussed about previous oral manifestations and dermatologist diagnosed it as EM minor of recurrent type. She was advised to be treated in the same way as last episodes. Systemic antihistaminic drugs and topical fusidic acid for skin lesions were added, the complete healing of lesions was noticed after 10 days. Because of the recurring episodes, acyclovir was continued prophylactically for 6 months, starting with 800 mg/day and reduced to 400 mg/day at the last month. Renal and hepatic functions were monitored during the course of treatment, and no abnormalities were found. In addition, no oral or skin lesions developed during the 6 months of treatment, and the disease is currently under control (Fig 2b,c,d,e).



Fig. 1 (a, b): Blood Encrusted Lip Lesions with Oral Ulcers during 2nd Episode
Fig.1 (c): Healed Lesions after the Treatment



Fig. 2 (a, b, c): Target or Iris lesions on the Face, Neck and Extensor Surface during 3rd Episode



Fig. 2 (d, e): Intraoral Ulcers during 3rd Episode and Healed Lesions after 1 Week of Treatment

Discussion:

The presentation of EM ranges from self limited, mild form (EM minor) to progressive and aggressive form like EM major, Steven Johnson Syndrome or Toxic Epidermolytic Necrosis. After Kenneth described the oral lesions typical of EM, it has been suggested as a third category of EM by many investigators, known as oral EM (OEM) that are characterized by typical lesions of EM but no target skin lesions [4-7]. OEM is chronically recurrent condition, with frequency of episodes varying from every 3 weeks to once yearly; episodes may be cyclic with duration varying from 10 days to 6 weeks [8-9].

A better understanding of the molecular and immunologic events underlying HSV-associated EM (HAEM) and their main differences with respect to drug induced EM has been provided by recent studies. It is suggested that disease development begins with HSV infection of epithelial skin cells and subsequently circulating mononuclear CD34⁺ cells (Langerhans cell precursors). This transports the HSV-DNA fragments to distant skin sites, where an immune mediated epidermal damage occurs due to production of interferon- γ (IFN- γ), which is released from CD⁺ cells in response to viral antigens, and immune mediated epidermal damage subsequently begins [5-6]. Conversely, in drug-induced EM, the reactive drug metabolites persuade the disease, and Tumour Necrosis Factor Alpha (TNF- α) induces keratinocyte apoptosis

which is released from keratinocytes, macrophages, and monocytes causing the tissue damage [10, 11]. A subset of EM patients has been reported to have autoantibodies against desmoplakin I and II and antiepidermal autoantibodies. In addition to a cellular immune response, humoral immune mechanisms may be involved in the pathogenesis of EM-like disease [6, 12].

Treatment of erythema multiforme depends on the type and severity of the disease, mild forms usually heal within 2–6 weeks; local wound care, topical analgesics or anesthetics for pain control and a liquid diet are often indicated in these situations. For more severe cases, intensive management with intravenous fluid therapy may be necessary, oral antihistamines and topical steroids may also be necessary to provide symptom relief. Systemic corticosteroids have been used successfully in relentless cases, but evidence to support their use for EM is limited [11, 13].

Conclusion:

Our case highlights the fact that many times oral mucosa may be the first or only the tissue to be involved in EM and later there may be subsequent involvement of skin in recurrent cases. So patient has to be cautioned about the dermatologic manifestations in their future episodes for their early diagnosis and prompt management.

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