Case Report

Herpes Associated Erythema Multiforme: A Case Report

Rahman MR[a], Shahriar R[c], Afroze SR[d], Khan MM[e], Uddin KN[f], Islam MN[g]

Abstract

Herpes associated erythema multiforme (HAEM) is an acute exudative dermatic and mucosal disease caused by the Herpes simplex virus *(HSV). It is the result of cell mediated immune reaction due to HSV antigen and has a presentation quite similar to Steven Johnsons Syndrome (SJS). Unlike SJS, use of steroids is not recommended in HAEM as it can aggravate the condition. Here we report a case of HAEM in a 35-year- old gentleman, who presented with fever, rash and sore throat. The clinical findings were in favour of HAEM and patient showed optimum response to symptomatic treatment.*

Key Words: *Herpes associated erythema multiforme, Steven- Johnsons syndrome, systemic steroids.*

(BIRDEM Med J 2017; 7(1): 72-75)

Introduction

Erythema multiforme is an acute mucocutaneous hypersensitivity reaction with a variety of aetiologies. It is charecterized by a skin eruption, with or without oral or other mucous membrane lesions.[1-4] It can be induced by medications or several infections , in particular HSV infection[1], which has been identified in up to 70% of erythema multiforme cases.[4] Clinically it presents as macular, papular or urticarial lesions as well as the classical "target lesions" distributed preferentially on the distal extremities.[5]

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Received: November 3, 2015 **Accepted:** November 30, 2016

Cases of Herpes associated erythema multiforme (HAEM) can often be confused with Steven- Johnsons syndrome (SJS) and Toxic epidermal necrolysis (TEN). HAEM can be distinguished from SJS by the presence of typical target lesions on the skin with or without mucosal involvement. When mucosal involvement is present in HAEM , it is limited to a single mucosal site rather than two or more separate mucosal sites as seen in SJS. HAEM resolves without sequelae within two weeks, whereas SJS often lasts longer than two weeks, leaving scars and could also have visceral involvement .[6] TEN, on the other hand, is a rare clinicopathological entity, with a high mortality, characterized by extensive detachment of full thickness epidermis.[4] While the cause of HAEM is viral infection, SJS and TEN are caused by systemic drugs in 80% of the cases.[7]

This article reports a case of HAEM in an adult male who recovered with conservative treatment.

Case Report

A 35-year old male, known diabetic and hypertensive, presented with high grade intermittent fever, sore throat, odynophagia for 2 days and itchy rash involving both shoulders and neck for 1 day. There was no history of previous drug reaction or intake of medication that could provoke such rashes. There were no other systemic complaints.

On admission, patient was febrile and had maculopapular rash over his neck, both shoulders and extensor surfaces of both forearms. Mucocutaneous junction of the lips (Fig.1 & 2), buccal mucosa and palates were also involved.

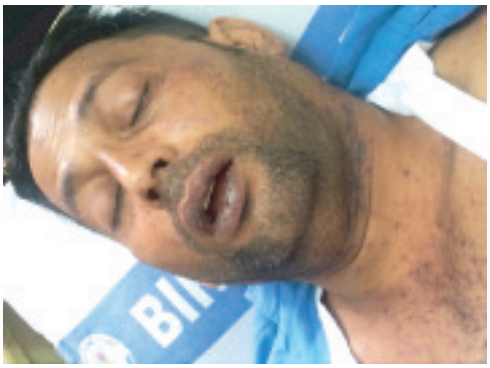

Figure 1: *Photograph of the patient at presentation.*

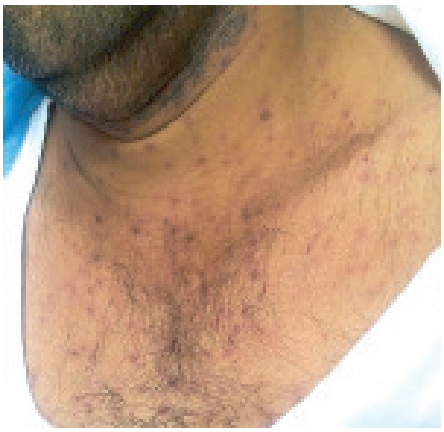

Figure 2: *Closer view of the rashes at presentation.*

During hospitalization, maximum recorded temperature was 104p F. Oral rash and odynophagia deteriorated to such degree that patient was unable to take even sips of water. The maculopapular rash extended to his entire body, sparing only the palms, soles and scalp. There were typical target lesions visible over these sites. Most rashes gradually developed area of central necrosis (Fig 3 & 4).

Figure 3: *Worsening of rashes 2 days after presentation*
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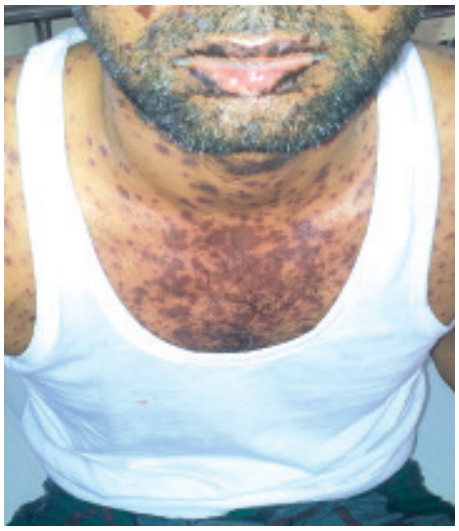

Figure 4: *Closer view of mucocutaneous rashes after 2 days* .

Rashes in his oral cavity and lips had started to slough out. Patient also developed redness, gritty foreign body sensation involving both eyes, associated with itching, running nose and dry cough. By the third day, he developed frequent episodes of loose stool.

Initial investigations showed a neutrophilic leucocytosis and a moderately raised ESR. His diabetes was under control. On the 6th day of hospitalization a blood sample was sent for IgM for HSV 1.

Consultation from Dermatology and Ophthalmology Departments were taken. Patient was treated conservatively with liquid to semisolid diet, intravenous normal saline, antipyretics, topical clobetasol proprionate ointment and gatifloxacin eye drop. Ceftriaxone 1 gram intravenously once daily was given daily to treat secondary infections. Other medications for diabetes and hypertension were continued. By the 5th day the rashes started to heal, patient's loose motion sustained and his general condition improved satisfactorily (Fig 5 & 6).

Patient was discharged from hospital on day 7. He came for follow up visit 3 days later much improved and a report showed positive IgM for HSV 1.

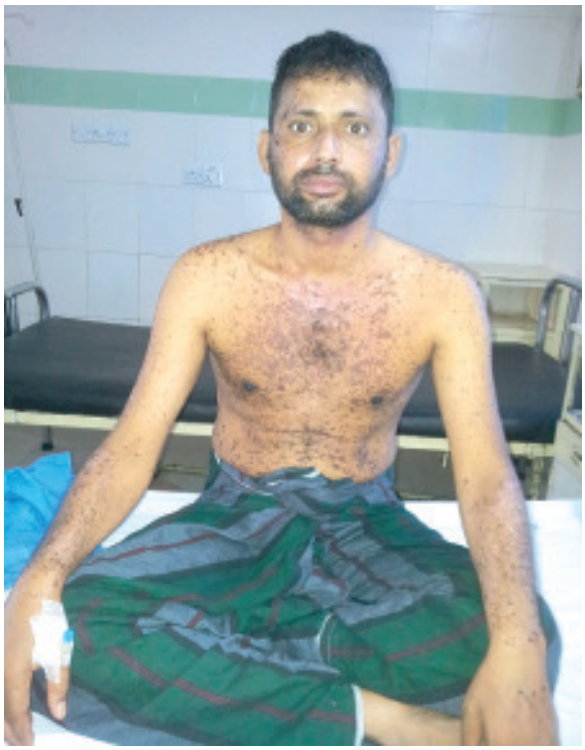

Figure 5: *Recovery phase of HAEM.*

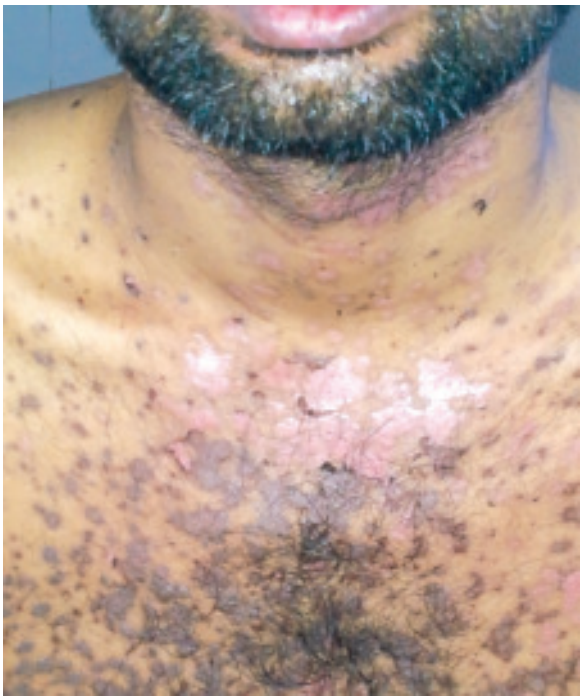

Figure 6: *Closer view of the rashes during recovery phase.*

Discussion

Several studies have demonstrated that the pathogenesis of HAEM is consistent with a delayed hypersensitivity reaction. HSV DNA is transported to the epidermis by immune cells that engulf the virus and fragment the DNA. The binding of HSV-containing mononuclear cells to endothelial cells and contribute to the dermal inflammatory response.[8]

Both HSV 1 and HSV 2 trigger the erythema multiforme lesion. A study revealed that cutaneous lesions of patients of HAEM were infected with HSV 1 in 66.7% cases, by HSV 2 in 27.8% and both HSV 1 and HSV 2 in 5.6% cases.[9] Serology to identify HSV 1 and HSV 2 and to detect specific IgM and IgG antibodies may confirm a suspected history of HSV infection.[8]

The diagnosis of HAEM is, however, clinical and is easier when the patient develops target lesions with a preceding or coexisting HSV infection. The finding of typical skin or oral lesions, or both as in our case, supports the clinical diagnosis of HAEM. Recurrences are common and may characterize the majority of the cases.[10] Patients may experience 2-24 episodes per year and the mean duration of the disease being 10 years.[3-4]

No specific treatment is available but supportive care is important; a liquid diet and intravenous fluid therapy may be necessary. Early ophthalmological and dermatological consultation is needed for diagnosis and management. Oral anti ulcerant and topical steroids may be necessary to provide symptomatic relief.[11] There is no strong evidence to support the use of systemic steroids in treating HAEM.[3] Rather, a steroid induced flare up of symptoms can occur. Systemic steroids are thus, best be avoided. Our patient responded well to conservative management without systemic steroids.

HAEM is often effectively managed with Acyclovir (500 mg 5 times a day for 5 days), but only if the therapeutic scheme is started within the first 48 hours of skin eruption. If HAEM is recurring, a continuous low dose of oral acyclovir is necessary.[3] As our patient presented 48 hours after the appearance of first skin eruptions, Acyclovir was not given. Other drugs used for treating recurrent HAEM include dapsone, azathioprine, thalidomide and ciclosporin. Plasmapheresis possibly has a role in very severe disease.[4, 10]

Conclusion

The most important step in management of HAEM is to reach an early diagnosis. Due to the lack of availability of specific investigations to reach diagnosis, early clinical recognition of disease remains essential for prompt treatment.

Conflict of interest: None

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