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Case Report

Kaposi`s varicelliform eruption in a case of pustular psoriasis

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ABSTRACT

Kaposi`s varicelliform eruption (KVE) is a disseminated cutaneous infection with herpesvirus type 1 or 2, vaccinia virus, or coxsackievirus A16 in a patient with another underlying dermatosis. When herpesvirus type 1 or 2 is the pathogenic virus, the term ‘‘eczema herpeticum’’ (EH) is used, independent of the underlying dermatologic diagnosis that preceded the eruption. Presenting a case of generalised pustular psoriasis who while on immunosuppressant therapy cyclosporine developed KVE on the 3rd week of therapy. Based on the nature of cutaneous eruption and the bed side Tzanck smear test he was diagnosed as Psoriasis herpeticum. He was treated with oral acyclovir for 15 days with complete resolution of the lesions. KVE rarely occurs in psoriasis. It is more often in those patients who are on immunosuppressant therapy like oral methotrexate, cyclosporine etc. A high index of suspicion is needed while managing skin eruptions in a known case of psoriasis.

Keywords: KVE, Pustular psoriasis, Acyclovir

INTRODUCTION

Kaposi`s varicelliform eruption (KVE), is a viral infection that arises in pre-existing skin conditions. The true incidence of KVE is not accurately known, because of its rarity and a lack of large studies. As the name implies, the vast majority of KVE cases are caused by herpes simplex viruses (HSV 1 and 2) and occur concomitantly with atopic dermatitis.[1] However, Cocksackie virus A16 and vaccinia virus have also been implicated. Multiple skin disorders have been associated with KVE including, pemphigus, Darier disease, psoriasis vulgaris, pityriasisrubrapilaris, Hailey-Hailey disease etc.[2] Occurrence of KVE in cases of psoriasis is very rare and is called as Psoriasis Herpeticum.

CASE REPORT

A-43-year-old male psoriatic patient, who has been on various topical and systemic modalities of therapy since 14 years. He had little respite in his symptoms in view of his poor compliance. The last known medication was an alternative form of medicine taken from a local homeopath. He presented to the OPD with fever and generalised erythroderma of 2 weeks duration.

On examination, he was febrile and found to have generalised erythematous scaly plaques superimposed with micropustules which were coalescing at places forming lakes of pus. The lesions were distributed symmetrically over the extremities and the trunk (Figure 1). His skin biopsy confirmed the diagnoses of pustular psoriasis (Figure 2 A and B). He was initially put on oral cyclosporine in the dose of 5 mg/kg and then tapered gradually over a period of 6 weeks and subsequently put on maintenance therapy with oral acitretin 25 mg once daily. He showed a satisfactory response with resolution of all the pustular psoratic lesions and erythroderma. On the 3rd week of therapy, patient developed umbilicated papulo-vesicular lesions over the face, trunk and extremities (Figure 3). Few crusted plaques were also present on the trunk. A suspicion of KVE was made and a

Tzanck smear was taken from one of the vesicular lesions. The smear showed the presence of multi-nucleate giant cell which confirmed the diagnoses of KVE (Figure 4). He was put on a course of oral acyclovir 400 mg thrice daily for 15 days. Patient started showing clearing of the lesions by 5th day of therapy and there was complete resolution of the lesions by 15 days.

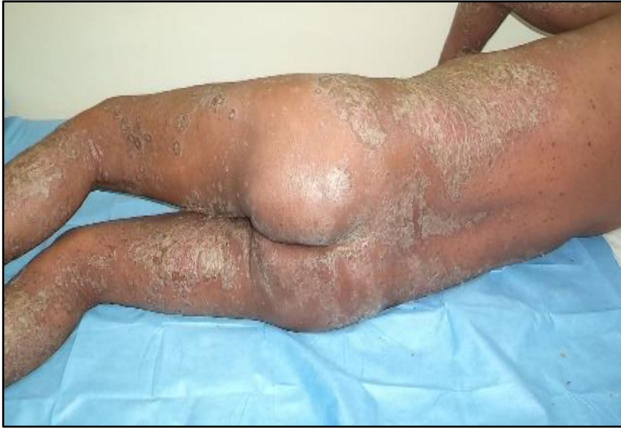

Figure 1: Multiple well defined polysized scaly plaques symmetrically distributed over trunk and extremities.

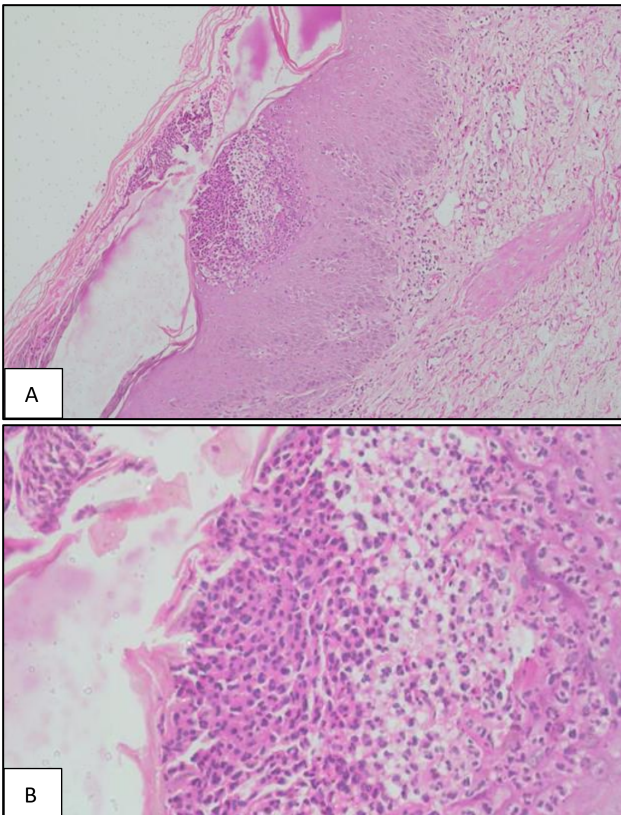

Figure 2 (A and B): Stratified squamous epithelium with acanthosis, hyperkeratosis, hypogranulosis with spongiosis and vacoular degeneration (H and E 40x). Section from skin showing epidermis and dermis with munro-micro-abscesses in epidermis (H and E 400 x).

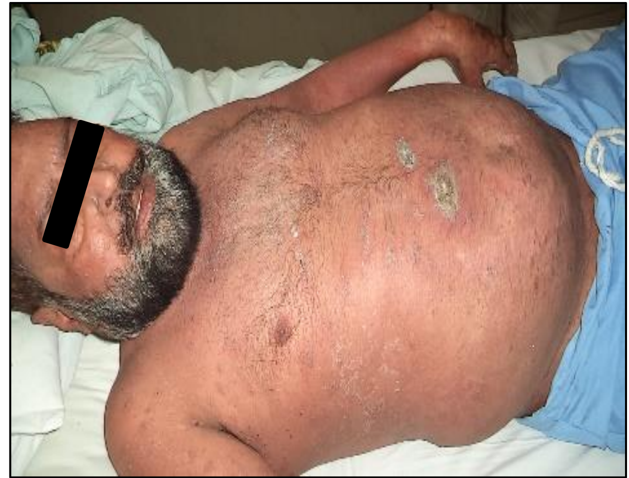

Figure 3: Crusted plaques over abdomen.

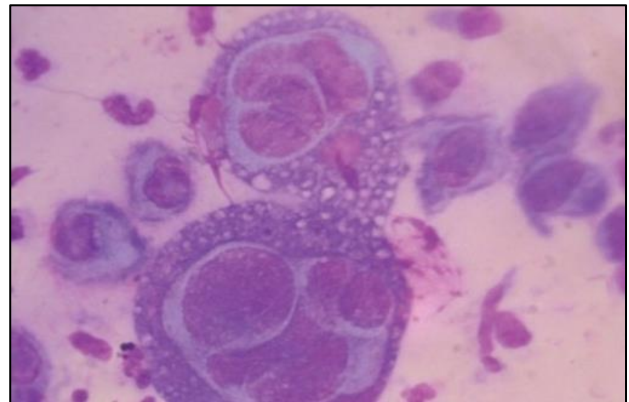

Figure 4: Acantholytic cells and multinucleate giant cells against a background of lymphocytes, neutrophils and plasma cells (MGG 1000x).

DISCUSSION

Kaposi varicelliform eruption was first described and reported by Moritz Kaposi in 1887.[3] Kaposi's varicelliformeruption refers to a disseminated cutaneous infection with herpesvirus type 1 or 2, vaccinia virus, or coxsackievirus A16 in a patient with another underlying dermatosis. Predominantly seen in adult patients suffering from certain skin disorders like underlying atopic dermatitis, but has also been shown to occur in patients with Ichthyosis, pemphigus, mycosis fungoides etc.[2] Incidence of KVE in psoriasis is rarely reported, handful cases of KVE in psoriasis have been reported till date.[2,5]

KVE usually begins as clusters of umbilicated vesiculo-pustules on skin affected by a pre-existing dermatitis and may be accompanied by a flu-like syndrome of fever, chills, and malaise. The upper body is the most common site of infection, with a predilection for the head and neck. Despite the typical finding of recurrent HSV disease following an isolated dermatomal pattern; in the setting of a diffuse dermatologic condition such as

psoriasis, spread across multiple dermatomes can be seen, presumably via cross contamination and inherent tissue susceptibility.[4] Dissemination of virus in KVE appears to be mainly hematogenous as evidenced by detection of HSV - DNA in non - herpetic areas of patients with KVE.[6,7]

The diagnosis of KVE is mainly clinical, although several laboratory tests can be useful. A Tzanck smear is the fastest test but is neither sensitive nor specific for HSV infection.[8] Direct fluorescent antibody staining allows rapid and accurate diagnosis, with results often available in a few hours. Viral culture is both sensitive and specific for HSV infection, but takes at least 48 hours. Both biopsy and serology are of little diagnostic value, and are not recommended on a routine basis. Early use of both antiviral drugs is extremely important; their use should not be delayed pending laboratory tests. The most commonly used antiviral drugs are the nucleoside analogues, which inhibit viral DNA polymerase. Initial treatment is generally with acyclovir, the most widely studied and used drug in KVE. Valacyclovir is also very effective, with better oral bioavailability and a more convenient dosing schedule for patients.

CONCLUSION

Pusutular psoriasis is itself a rare complication of psoriasis. Developing KVE in a case of pustular psoriasis while on therapy is further a rare entity. The aim of presenting this case is to apprise the treating physicians of the myriad of complications and presentations which a case of psoriasis can present with. Both timely diagnoses and treatment with the use of appropriate lab tests will help in timely intervention and cure.

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REFERENCES

1. Wollenberg A, Zoch C, Wetzel S, Plewig G, Przybilla B. Predisposing factors and clinical features of eczema herpeticum: A retrospective analysis of 100 cases. J Am Acad Dermatol 2003;19:198-205.
2. Santmyire-Rosenberger BR, Nigra TP. Psoriasis herpeticum: Three cases of Kaposi's varicelliform eruption in psoriasis. J Am Acad Dermatol 2005;53:52-6.
3. Garg G, Thami GP. Psoriasis herpeticum due to Varicella zoster virus: a Kaposi's varicelliform eruption in erythrodermic psoriasis. Indian J Dermatol. 2012;57(3):213-4.
4. Kimberlin DW, Rouse DJ. Clinical practice: genital herpes. N Eng J Med. 2004;350(19):1970-7.
5. Saraswat A, Ratho RK, Kumar B. Two unusual cases of Kaposi's varicelliform eruption. Acta Derm Venereol 2002;82:138-9.
6. Goodyear HM, Davies JA, McLeish P, Buchan A, Skinner GR, Winther M et al. Growth of herpes simplex type 1 on skin explants of atopic eczema. Clin Exp Dermatol. 1996;21:185-9.
7. Marcus B, Lipozencic J, Matz H, Orion E, Wolf R. Herpes simplex: Auto inoculation versus dissemination. Acta Dermatovenerol Croat. 2005;13:237-41.
8. Yaeen A, Ahmad QM, Farhana A, Shah P, Hassan I. Diagnostic value of Tzanck smear in various erosive, vesicular, and bullous skin lesions. Indian Dermatol Online J. 2015;6:381-6.

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