

CAS CLINIQUE / CASE REPORT

TOPICAL CORTICOSTEROID INDUCED SKIN LIMITED KAPOSI SARCOMA

Case Report and Literature Review

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Assiri D, Binamer Y, Al-Zaid T. Topical corticosteroid induced skin limited Kaposi sarcoma: case report and literature review. *J Med Liban* 2018; 66 (3): 170-172.

ABSTRACT • Kaposi sarcoma (KS) is an uncommon vascular neoplasm that can be limited to the skin or involve multiple organs. It occurs in immunocompromised as well as in immunocompetent hosts.

Kaposi sarcoma in immunocompromised hosts occurs mainly with systemic immunosuppressive medication. Topical immunosuppressive medications were rarely reported to cause such a problem. We herein present a case of localized bullous pemphigoid, which was complicated by the development of Kaposi sarcoma after eight months of treatment with topical clobetasol propionate 0.05%. The lesions cleared spontaneously four months after discontinuation of topical steroid therapy.

Keywords: Kaposi sarcoma; topical steroids; HHV-8

INTRODUCTION

Kaposi sarcoma (KS) is an uncommon low-grade vascular neoplasm. It is classified into four main clinical variants: classic, endemic or African, associated with human immunodeficiency virus (HIV) and iatrogenic. The latter is associated with prolonged systemic immunosuppressive therapy mainly in recipients of solid organ transplants, rheumatic disorders, inflammatory bowel disease and malignancies [1]. However, topical immunosuppressive e.g. topical steroid and topical calcineurin inhibitors can also result in local immunosuppression.

We are reporting a 73-year-old male with localized Kaposi sarcoma that appeared after eight months of using topical clobetasol propionate 0.05% to treat localized bullous pemphigoid.

CASE REPORT

A 73-year-old male with ischemic heart disease and hypertension was diagnosed with localized bullous pemphigoid on his right shin. This was based on the clinical picture of multiple tense blisters. Histopathological examination of the biopsied tissue revealed sub-epidermal blisters rich in eosinophils. Enzyme-

linked immunosorbent assay (ELISA) for bullous pemphigoid antigen-2, 180 Kd (BP 180) was high. He was treated with clobetasol propionate 0.05% twice a day with a good response.

On his follow-up visit, three months later, all his skin lesions were improved and he was instructed to use topical steroid as needed. The patient was reevaluated six months later and was on complete remission on topical clobetasol. He has been using clobetasol propionate daily for nine months since his first presentation. On examination, his primary skin condition was cleared; however, he had developed two asymptomatic red nodules at the same site of his resolved bullous pemphigoid, on the right lower shin with epidermal atrophy (Figure 1). No lymphadenopathy and no other cutaneous or mucosal lesions were detected.

Skin biopsy showed vasoformative lesion in dermis with positive immunohistochemical staining for human herpes virus-8 (HHV-8), consistent with Kaposi sarcoma (Figure 2). HIV test was negative and there was no gastrointestinal involvement on endoscopic examination. Topical clobetasol was discontinued and topical moisturizers were prescribed. Three months later, all nodules cleared completely.

DISCUSSION

Kaposi sarcoma is a vascular neoplasm localized mainly to skin and subcutaneous tissue. However, involvement of internal organs is a well-known phenomenon particularly in the iatrogenic type [2]. It can present as violaceous patches which may progress into nodules or plaques over time [3]. The most common type is the classic variant which mainly affects elderly men of Mediterranean origin and is localized to the soles [4].

KS associated herpes virus (KSHV), also known as human herpes virus-8, is the etiologic agent for Kaposi sarcoma [5]. In the presence of intact immunity, KSHV usually causes a persistent latent infection. However, immunosuppression status of the host promotes reactivation of KSHV [6].

Iatrogenic Kaposi sarcoma occurs mainly with systemic immunosuppressive medications while topical immunosuppressive agents have rarely been reported in the literature.

Prolonged use of topical super-potent corticosteroids

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Figure 1

Two residual red nodules at the same site of bullous pemphigoid with background of epidermal atrophy

can produce localized immunosuppression and, as in our case, can precipitate Kaposi sarcoma [2].

Only a few cases of KS induced by topical steroids have been found in the literature. To the best of our knowledge this appears to be the third case report of topical steroid-induced KS, used as a single therapeutic agent. Previous two reports were by Boudhir *et al.* [7] and Tyros *et al.* [2]. A case report by Perez *et al.* [8] described that the development of KS following treatment with topical steroids was in fact a reactivation of KS lesions which were previously treated by radiotherapy, interferon alfa-2b and systemic immunosuppressive therapy. Topical corticosteroid induced KS in a patient with atopic dermatitis reported by Vandercam *et al.* [9] could have possibly been triggered by concurrent systemic immunosuppressive therapy which the patient was receiving. Similarly, development of KS at the site of application of topical corticosteroids in a patient with AIDS may have been due to HIV infection

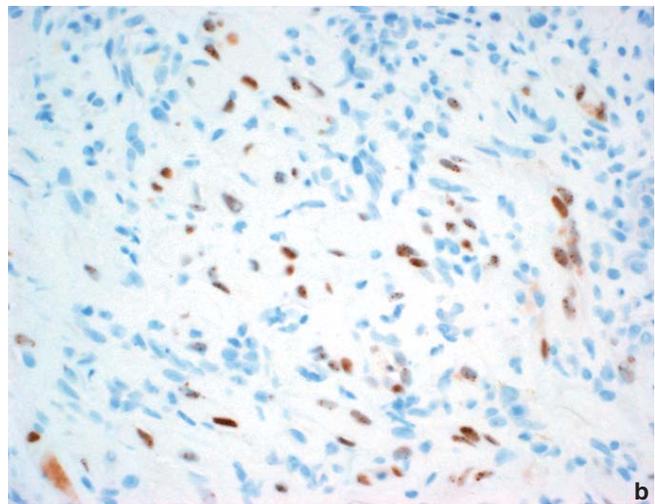
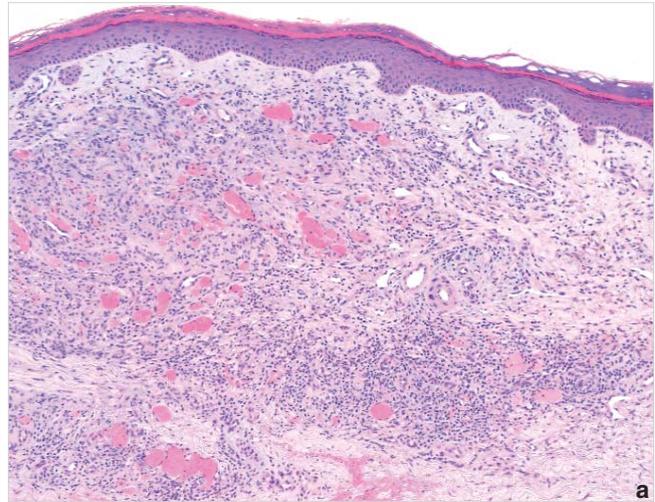


Figure 2

Vasoformative lesion in dermis (a) with positive immunohistochemical staining for HHV-8 (b).

[10]. Additionally, prolonged use of topical corticosteroids has been implicated in the induction of purple to red angiomatoid nodules resembling clinical features of KS [11].

Collectively these observations emphasize the need for continuous monitoring of prolonged topical corticosteroid therapy in order to avoid associated complications.

CONCLUSION

Induction of localized immunosuppression appears to be a predisposing factor in the development of Kaposi sarcoma. Extreme caution should be exercised while prescribing potent topical immunosuppressive agents particularly for a prolonged period of time.

Close monitoring of such patients is mandatory for early detection of Kaposi sarcoma and discontinuation of topical immunosuppressive therapy.

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