Journal of the Turkish Academy of Dermatology
eISSN 1307-394X

Case Report DOI: 10.6003/jtad.1374c1

Unusual Distribution of *Kaposi*'s Sarcoma with Scattered Appearance

Evren Odyakmaz Demirsoy,[1*] MD, Rebiay Kıran,[1] MD, Ömür Kocaoğlu,[1] MD, Cengiz Erçin,[2] MD

Address: [1]Department of Dermatology and [2]Department of Pathology, Kocaeli University School of Medicine, Kocaeli, Turkey

E-mail: evrenodyakmaz@yahoo.com

** Corresponding Author:* Dr. Evren Odyakmaz Demirsoy, Department of Dermatology, Kocaeli University School of Medicine, 41380, Kocaeli, Turkey

Published:
J Turk Acad Dermatol 2013; **7 (4)**: 1374c1
This article is available from: http://www.jtad.org/2013/4/jtad1374c1.pdf
Key Words: Kaposi's sarcoma, Koebner phenomenon, sarcoma

Abstract

Observation: We present a 63-year-old patient with *Kaposi*'s sarcoma whose lesions had increased and had an unusual, scattered appearance after cardiac stasis. Koebner phenomenon might be a reason for this unusual appearance.

Introduction

Kaposi's sarcoma (KS) is a vascular neoplasm and was first described in 1972 by *Moricz Kaposi*. It has four types regarding the clinical and epidemiologic characteristics; classic, endemic, transplant-associated and epidemic. In classic KS, there is no immunodeficiency and the lesions usually start on the distal part of extremities as unilateral or bilateral bluish-red macules that tend to progress into firm plaques and nodules. Disease progress is usually slow and mucosal and systemic involvement is not common [**1, 2**]. We present a 63-year-old patient with Kaposi's sarcoma whose lesions had increased and had an unusual, scattered appearance after cardiac stasis.

Case Report

Sixty-three years old man presented us with red spots on his legs for the last year. He had a cardiac by-pass operation which was performed 1 year ago and his right vena saphena parva was used during this operation as a graft. He was obese and he was suffering from dyspnea, especially during night on sleep. On his dermatological examination, there was bilateral non pitting edema on his limbs and hard erythematous plaques on anterior aspects of his both legs. Furthermore he had purple papules on his both feet and left leg. Histopathologic examination of the erythematous plaques revealed findings of stasis dermatitis and also papular lesions were consistent with *Kaposi*'s sarcoma. Anti Human Immunodeficiency Virus test was negative. There was no mucosal or internal organ involvement due to KS. Venous insufficiency was not detected on doppler USG of both extremities. He was consulted with cardiology department and was diagnosed to have cardiac insufficiency as the cause of dyspnea and edema he suffered. After medical treatment according to suggestions of cardiologist, dyspnea and edema regressed significantly.

Cryotherapy was planned as the treatment method for KS but he did not apply to our clinic for the following 4 months. When he applied again there were some different findings on dermatological examination; such as scattered purple papules and nodules on his right leg (**Figure 1**). He was suffering from dyspnea and there was prominent pretibial edema again. Histopathological examination of these scattered papules revealed vascular spaces by spindled endothelial cells in the dermis and these findings

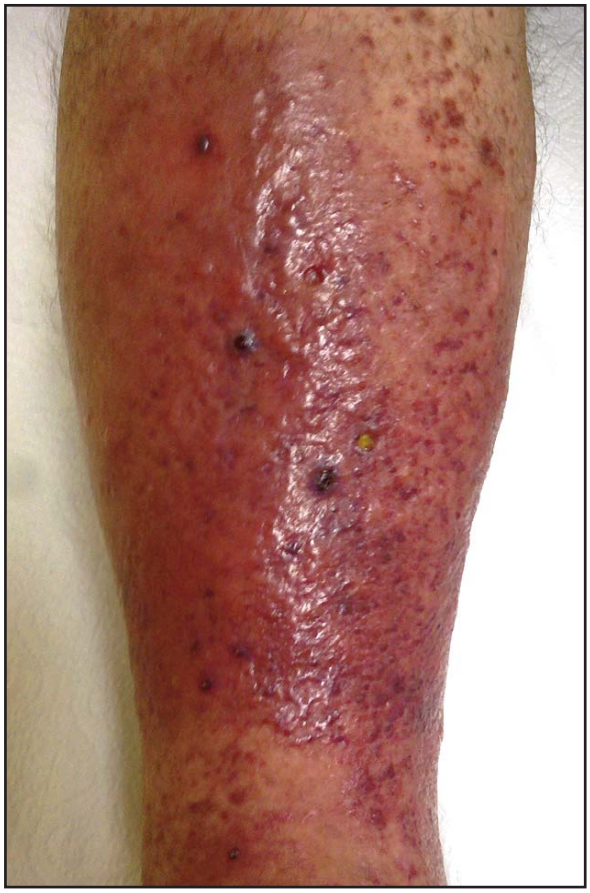


Figure 1. Multiple purple, scattered appearance papules on his right leg

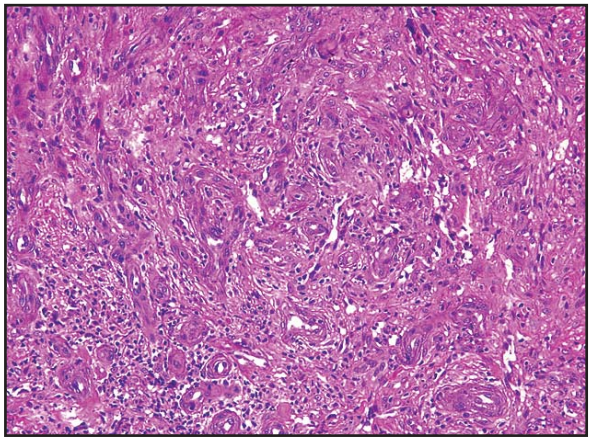
were interpreted as KS (**Figures 2 a, b**) Pretibial edema and respiratory symptoms decreased significantly after rearrangement of medical therapy directed to cardiac insufficiency. Radiotherapy was performed on both lower extremities and all lesions disappeared after radiotherapy. He is still followed up in our outpatient clinic and he rarely happens to have sporadic lesions that easily respond to cryotherapy.

Discussion

Our patient had classic KS and during his first acceptance, as expected, his lesions were mainly on the lower extremities and he had a stasis dermatitis on his limb. On his second visit, we detected many scattered livid papules on areas where stasis dermatitis existed previously.

There is usually pitting edema surrounding the tumor in classic KS [**1**]. Our patient had leg edema but it must have derived from cardiac stasis as edema regressed significantly after diuretic treatment. There was not any sign of venous insufficiency on venous doppler ultrasound of the extremities.

We think that these scattered, widespread lesions occurred due to stasis or stasis dermatitis. Stasis may have triggered the KS as *Koebner* phenomenon. *Koebner* phenomenon in KS was previously reported a few times. Most of these cases are AIDS related or transplant receivers on immunosuppressive treatment [**3, 4, 5**]. There is only one case with Koebner phenomenon reported in classical KS [**6**]. Our patient did not have immunodeficiency. According to *Boyd-Nelder* classification system it has been classified in category III as it consisted occasional traumatic localization of lesions [**7**]. Cytokine basic fibroblast growth factor (b-FGF), released from traumatized ke-



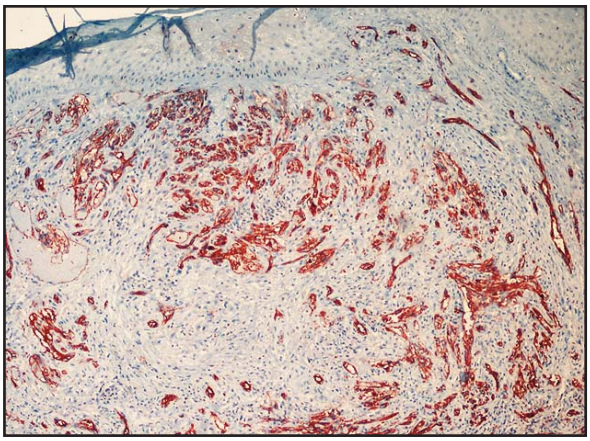


Figure 2a, b. Slit-like vascular spaces by spindled, stained with CD34 endothelial cells in the dermis. (a. Hematoxylin-eosin X 200, b. CD34 X 100)

ratinocytes, stimulates proliferation of endothelial cells and may play a key role in development of *Koebner* phenomenon [**8**]. Furthermore hemodynamic disturbance may affect the endothelial cells directly. Pseudokoebner may be the other explained hypothesis in which spreading of an infective agent in an area of traumatized skin is the subject. Significant impact of Human herpes virus 8 on occurence of KS is well known now [**9**].

The aim of this case report is to remind Koebner phenomenon, which sometimes spreads to a wider area. We should keep in mind that KS is a disease that demonstrates koebnerization and it will be useful to warn patients about effect of trauma on skin to prevent delivering the new lesions.

References

1. Tschachler E. Kaposi Sarcoma. In: Fitzpatric's Dermatology in General Medicine. Eds. Wolf K, Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell DJ. 7th ed. New York, McGrawHill Medical, 2007; 1183-1187.
2. Szajerka T, Jablecki J. Kaposi's sarcoma revisited. AIDS Rev 2007; 9: 230-236. PMID: 18219366
3. Maral T. The Koebner phenomenon in immunosuppression-related Kaposi's sarcoma. Ann Plast Surg 2000; 44: 646-648. PMID: 10884083
4. Seckin D, Ozcan G, Demirag A, Hizel N, Haberal M. The Koebner phenomenon in Kaposi's sarcoma in a renal transplant recipient. Br J Dermatol 1998; 139: 346-348. PMID: 9767262
5. French PD, Harris JR, Mercey DE. The Koebner phenomenon and AIDS-related Kaposi's sarcoma. Br J Dermatol 1994; 131: 746-747. PMID: 7999629
6. Potouridou I, Katsambas A, Pantazi V, Armenaka M, Vareltzidis A, Stratigos J. Koebner phenomenon in classic Kaposi's sarcoma. Acta Derm Venereol 1997; 77: 481. PMID: 9394989
7. Boyd AS, Neldner KH. The isomorphic response of Koebner. Int J Dermatol 1990; 29: 401-410. PMID: 2204607
8. Weiss G, Shemer A, Trau H. The Koebner phenomenon: review of the literature. J Eur Acad Dermatol Venereol 2002; 16: 241-248. PMID: 12195563
9. Rubin AI, Stiller MJ. A listing of skin conditions exhibiting the koebner and pseudo-koebner phenomena with eliciting stimuli. J Cutan Med Surg 2002; 6: 29-34. PMID: 11896422