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Case report: HIV negative isolated scrotal Kaposi's sarcoma



Hamid Ozmen*, Dursun Baba, Coskun Kacagan, Ali Kayikci, Kamil Cam

Department of Urology, Duzce University School of Medicine, Duzce, Turkey

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ABSTRACT

INTRODUCTION: Kaposi's sarcoma (KS) is a rare angioproliferative disorder of the vascular endothelium. The development of KS requires Human Herpes Virus 8 (HHV-8) infection. An associated HIV infection is usually seen. Isolated scrotal KS has rarely been reported. In this article, we present a case of KS that primarily involved the scrotum in a HIV negative patient.

PRESENTATION OF CASE: A 71-year old male patient admitted to the outpatient department due to nodular lesions on the scrotum. The patient declared that these lesions were present for nearly 5 years. Past medical history revealed that he underwent left thoracotomy and upper lobectomy in 2006 for adenosquamous lung carcinoma. Then, he received a single cycle of adjuvant chemotherapy consisted of docetaxel and cisplatin. Physical examination revealed 3 black small nodules on the scrotum. The anti-HIV test was negative. All scrotal lesions were surgically excised. The pathological investigation revealed KS of the lymphangioma-like type.

DISCUSSION: The pathogenesis of KS has still not been clearly elucidated. However, it is known that all forms of KS are associated with HHV-8 infections. A defect in immune system was almost always necessary. Therefore, KS is usually associated with HIV infection. KS of the penis has been reported in HIV negative patients. Very few cases of scrotal KS have been presented. In a recent review, only 1 patient had scrotal KS out of 32 cases with HIV negative KS. In our case, the patient received a cycle of chemotherapy that might affect his immune system. The lymphangioma-like type is a common morphological sub-type. While lymph edemas are commonly observed in this sub-type, no edema in the lymph was present in our case.

CONCLUSION: Classical KS is generally observed in the lower extremities, it can rarely affect scrotal skin as isolated lesions. Therefore, a careful physical examination should also include scrotum for these patients.

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1. Introduction

Kaposi's sarcoma (KS) is a rare angioproliferative disorder of the vascular endothelium. The development of KS requires the presence of a Human Herpes Virus 8 (HHV-8) infection. A strong association with HIV infection is well known. The classical form was first defined as "idiopathic multiple pigmented sarcoma" by Moritz Kaposi in 1872.¹ The skin lesions are classically characterized by macules, plaques and nodules that are of a purple, red, blue, dark brown or black appearance. While KS primarily affects mucocutaneous tissues, it can also affect internal organs. Classical KS mostly affects the lower extremities. Penile KS is relatively common, while

isolated scrotal KS has rarely been seen.² In this article, we present a case of scrotal KS in a HIV negative patient.

2. Case report

A 71-year old male patient admitted to the outpatient department due to black nodular lesions on the scrotum. The patient declared that these lesions were present for nearly 5 years. Past medical history revealed that he underwent left thoracotomy and upper lobectomy in 2006 for adenosquamous lung carcinoma. Then, he received a single cycle of adjuvant chemotherapy consisted of docetaxel and cisplatin. The chemotherapy was discontinued due to the side effects. No recurrence was detected regarding the lung cancer. The scrotal lesions appeared 2 months following the chemotherapy. Physical examination revealed 3 black nodules on the scrotum, each one being nearly 0.5 cm × 0.5 cm in dimension (Fig. 1). No other similar lesions were seen elsewhere. Routine laboratory tests were all normal. The anti-HIV test (chemiluminescence) was negative. He had abdominal computed

* Corresponding author at: Department of Urology, Duzce University School of Medicine, Konuralp 81620, Duzce, Turkey. Tel.: +90 380 542 13 90; fax: +90 380 542 13 87.

E-mail address: hamidozmen@hotmail.com (H. Ozmen).



Fig. 1. Three black nodules on the scrotum.

tomography for the follow-up of lung cancer showing no specific abnormality unless an increase in the thickness of the stomach wall. A gastroscopy was then performed revealing no lesions. All scrotal lesions were surgically excised. The pathological investigation revealed KS of the lymphangioma-like type.

3. Discussion

In classical KS, lesions are primarily located on the lower extremities, and the involvement of external genitalia is uncommon.³ Although cases of HIV negative patients in which the penis is primarily involved have been reported, very few cases of scrotal KS have been presented. In a recent study, only 1 patient had scrotal KS out of 32 cases with non-HIV KS.² Also, it was unclear that this single case of scrotal KS was associated with other locations or not.² Penile KS has been reported more extensively. Vyas et al. first reported an isolated case of scrotal KS in 1976.⁴ Then, only two cases of isolated scrotal KS were presented.^{5,6} Our case represents the 4th case up to our knowledge.

The pathogenesis of KS has still not been clearly elucidated. However, it is known that all forms of KS are associated with HHV-8 infections. A defect in immune system was almost always necessary. Therefore, KS is usually associated with HIV infection. In our case, the patient received a cycle of chemotherapy that might affect his immune system.

The lymphangioma-like type is a common morphological subtype. While lymph edemas are commonly observed in this subtype, no edema in the lymph was present in our case.

A Greek study reported asymptomatic stomach involvement in 82% of patients with classical KS.⁷ They suggest routine endoscopy for newly diagnosed KS patients. Our case had no systemic lesions on endoscopy and radiological imaging. Detailed physical examinations also revealed no other skin lesions.

Studies conducted for the treatment for KS are generally performed on HIV patients. Unfortunately, there is currently no treatment method capable of eradicating HHV-8. For this reason, the main goal of KS treatment is to alleviate the symptoms of the disease, to reduce the size and number of cutaneous and visceral

lesions, and to reduce and delay the progression of the disease.⁸ Despite the use of various local and systemic treatment methods for classical KS, there is no standard treatment procedure administered to cases with genital KS. A total of 19 cases with penile KS were reported.⁹ Local excision was performed on 9 patients, circumcision was performed on one patient, and radiotherapy, chemotherapy or IFN-alpha treatment in addition to local excision was performed on 3 patients. During the follow-up period, only 4 cases with local excision relapsed. Vyas et al. performed total scrolectomy and bilateral orchiectomy in their report with scrotal KS.⁴ We preferred local excision for our patient, since these lesions were small and stable for about 5 years. No recurrence was observed after 2 years of follow-up.

In conclusion, classical KS is generally observed in the lower extremities, it can rarely affect scrotal skin as isolated lesions. Therefore, a careful physical examination should also include scrotum for these patients.

Conflict of interest

There is no conflict of interest.

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Ethical approval

A written informed consent was obtained from the patient.

Author contributions

Hamid Ozmen: data collections, writing; Dursub Baba: data collections; Coskun Kacagan: data collections; Ali Kayikci: study design, data collections; Kamil CAM: study design, writing.

References

- [1].Braun M. Classics in oncology. Idiopathic multiple pigmented sarcoma of the skin by Kaposi. *CA Cancer J Clin* 1982;**32**:340–7.
- [2].Rescigno P, Di Trolino R, Buonerba C, De Fata G, Federico P, Bosso D, et al. Non-AIDS-related Kaposi's sarcoma: a single-institution experience. *World J Clin Oncol* 2013;**10**:52–7.
- [3].Aktas E, Güler E, Utaş S, Deniz K, Orhan O, Yıldız OG. Penile Kaposi's sarcoma in an HIV negative male patient. *Turkderm* 2008;**4**(2):131–3.
- [4].Vyas S, Manabe T, Herman JR, Newman HR. Kaposi's sarcoma of scrotum. *Urology* 1976;**8**:55–82.
- [5].Johnson DE, Chica J, Rodriguez LH, Luna M. Kaposi's sarcoma presenting as scrotal ulcerations. *Urology* 1977;**9**(June (6)):686–8.
- [6].Serrano C, Sánchez G, del Mar Serrano M, Linares J, Dulanto C, Naranjo R. Nódulos y placas violáceas en escroto y muslo. *Actas Dermosifiliogr* 2005;**96**(2):127–9.
- [7].Balachandra B, Tunitsky E, Dawood S, Hings I, Marcus VA. Classic Kaposi's sarcoma presenting first with gastrointestinal tract involvement in a HIV-negative Inuit male – a case report and review of the literature. *Pathol Res Pract* 2006;**202**:623–6.
- [8].Kolios G, Kaloterakis A, Filiotou A, Nakos A, Hadziyannis S. Gastroscopic findings in Mediterranean Kaposi's sarcoma (non-AIDS). *Gastrointest Endosc* 1995;**42**:336–9.
- [9].Fatahzadeh M. Kaposi sarcoma: review and medical management. *Oral Surg Oral Med Oral Pathol Oral Radiol* 2012;**113**:2–16.

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