

Iatrogenic kaposi sarcoma: case report with review of the literature

Abstract

Kaposi disease is a lymphatic endothelium derived tumor associated with human herpes virus type 8 (HHV8), this affection is promoted by immune suppression. It may be the complication of HIV infection, affect old man, or be an endemic disease. In the other hand, patients who are a transplant recipient or undergoing immunosuppressive therapy could develop iatrogenic Kaposi disease. Herein we report the case of 70 years old woman who presented a corticoinduced Kaposi sarcoma of the legs.

Keywords: kaposi sarcoma, iatrogenic, immune suppression, HHV8

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Abbreviations: KS, kaposi sarcoma; HHV8, human herpes virus type 8

Introduction

Kaposi disease is defined as a lymphatic endothelium derived tumor associated with human herpes virus type 8 (HHV8), this affection is promoted by immune suppression.¹ It may be the complication of HIV infection, or affect old man, of the Mediterranean, Central and Eastern European heritage.² In the other hand, patients who are a transplant recipient or undergoing immunosuppressive therapy could develop iatrogenic Kaposi disease.³

Case observation

A 70 years old woman, obese, with the history of asthma since a young age, was referred to our department for the management of painful lesions of the legs which appears since a year ago, the anamnesis revealed administration of corticosteroids for 20 years at the dose of 40 mg by auto medication. Dermatological examination shows erythematoviolaceous and angiomatous plaques and nodules on the external face of the legs with moderate lymph edema (Figure 1). Mucosal examination and the rest of general examination did not note any abnormalities. At the dermoscopic examination, we didn't find any specific patterns except of a tender rainbow in some lesions (Figure 2). In front of these lesions was first evoked Kaposi Sarcoma, cutaneous metastasis of solid vascular tumor, cutaneous metastasis of Melanoma. The patient benefited of a skin biopsy, which shows mesenchymatous cell proliferation with diffuse atypical vascular proliferation (Figure 3). Immuno histochemical complement was marked by CD34 fixation (Figure 4). The diagnosis of iatrogenic Kaposi sarcoma was then retained and the patient benefited of a thoracoabdominopelvic tomodensitometry, a digestive colonoscopy and gastro oesophageal fibroscopy wich dosen't shows extracutaneous location of the Kaposi disease. Therapeutical abstension was chosen with antalgic and progressive decrease of corticotherapy. The patient showed clear improvement with a decline of two years.



Figure 1 angiomatous nodules of the leggs with moderate lymphoedema.

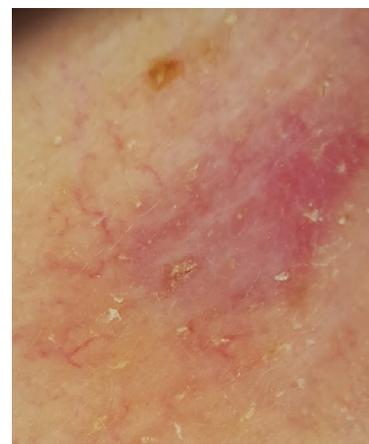


Figure 2 light rainbow pattern with telangiectasies in Dermoscopy.

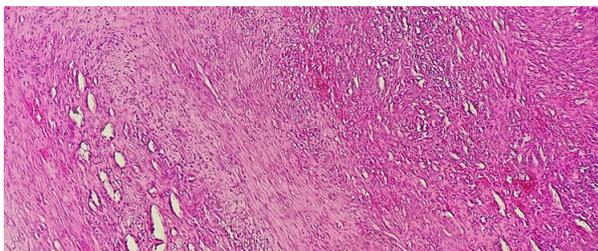


Figure 3 HES stain XG200 showing mixed proliferation with fibroblastic and endothelial contingent, associated to a moderate lymphohistiocytic infiltration.

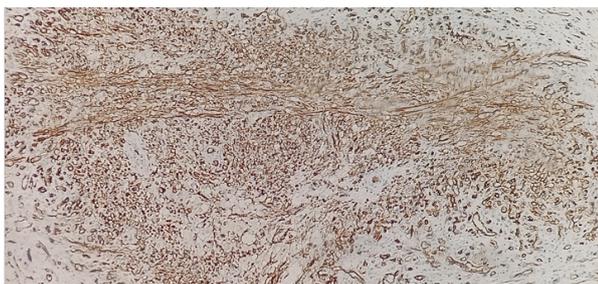


Figure 4 Stainx200, fixation of CD 34 in both fibroblastic and vascular contingent.

Discussion

Kaposi sarcoma (KS) is a multicentric lymphatic endothelium derived cells. It's now considered as an infectious disease with implications of HHV8 otherwise named KSHV (Kaposi sarcoma herpes virus).⁴ Iatrogenic subtype of KS occurs in patients treated with immunosuppressive therapy, particularly in organ recipient patients.⁵ In Fact, patients with renal transplantation are treated for long term with calcineurine inhibitors such as cyclosporine, which is the more culprated molecule immunosuppressive agent.⁶

In the literature, many cases of iatrogenic KS are reported, it concern patients receiving immunosuppressive therapy for autoimmune disease among them, we cite: lupus erythematosus, rheumatoid arthritis, dermatomyositis, polymyositis, temporal arteritis and inflammatory bowel disease.^{7,8} In dermatologic diseases treated with immune suppressive therapy complicated with KS, few cases was reported, dominated by bullous pemphigoid and pemphigus.⁹

Like classical KS, iatrogenic KS appears as purplish or dark brown macules, plaques or nodules that may ulcerate, bleed or became verrucous. Arising more frequently in the legs, this clinical presentation is usually associated to lymphoedema that may preced lesion appearance.^{10,11} Dermoscopy shows classical colors of vascular tumors (purple, yellow, green, blue and red) displaying : rainbow pattern¹² Extracutaneous involvement is more frequent in post-transplant KS, with mucosal, intestinal and ganglionnar involvement, cutaneous lesions are more widespread and extensive.^{13,14}

As was the case of our patient, the disease regress after interruption of immune suppression emphasizing the essential role of immune restoration.¹⁵ Despite of this, in front of severe stages of the disease, systemic therapies may be indicated. The most used molecules are Pegylated liposomal doxorubicin, Paclitaxel, Interferon Alfa-2a or 2b which cannot be administrated to transplant recipient patient because

of the risk of transplant rejection.⁵ For local nodules, surgical excision, or physical therapies such as cryosurgery, electro coagulation and laser may be indicated.⁵

The follow up of patients with iatrogenic KS depend on the severity and stage of the disease. But generally it consist on clinical examination with standard blood tests, indications for total body scan, bronchoscopy and gastrointestinal fibroscopy are personalized.⁵

Conclusion

Iatrogenic KS shares similar features with the classic KS, autoregressivity after the incriminated drug interruption is a major criteria for the diagnosis, and give this entity a good prognosis.

Acknowledgments

None.

Conflicts of interests

The authors of this manuscript have no competing interests.

References

1. Delyon J, Rabate C, Euvrard S, et al. Management of Kaposi sarcoma after solid organ transplantation: A european retrospective study. *J Am Acad Dermatol.* 2019;81:448–455.
2. Cattani P, Cerimele F, Porta D, et al. Age-specific seroprevalence of human herpesvirus 8 in mediterranean regions. *Clin Microbiol Infect.* 2003;9(4):274–279.
3. Geraminejad P, Memar O, Aronson I, et al. Kaposi's sarcoma and other manifestations of human herpesvirus 8. *J Am Acad Dermatol.* 2002;47(5):641–655.
4. Schneider JW, Dittmer DP. Diagnosis and treatment of kaposi sarcoma. *Am J Clin Dermatol.* 2017;18:529e39.
5. Lebbe C, Garbe C, Stratigos AJ, et al. Diagnosis and treatment of kaposi's sarcoma: european consensus-based interdisciplinary guideline (EDF/EADO/EORTC). *European Journal of Cancer.* 2019;114:117–127.
6. Bologna JL, Jorizzo JL, Schaffer JV. *Dermatology.* 3rd edn. Philadelphia, PA: Elsevier; 2012:1340–1343
7. Louthrenoo W, Kasitanon N, Mahanuphab P, et al. Kaposi's sarcoma in rheumatic diseases. *Semin Arthritis Rheum.* 2003;32(5):326–333.
8. Trattner A. The appearance of Kaposi sarcoma during corticosteroid therapy. *Cancer.* 1993;72(5):1779–1783.
9. Tremblay C, Friedmann D. Kaposi sarcoma associated with iatrogenic immunosuppression: a rare complication of bullous pemphigoid treatment. *J Cutan Med Surg.* 2017; 21:449–451.
10. Schneider JW, Dittmer DP. Diagnosis and treatment of kaposi sarcoma. *Am J Clin Dermatol.* 2017;18(4):529–539.
11. Lebbé C. Humanes herpesvirus 8 (HHV-8) und kaposi-Sarkom. *Hautarzt.* 2007;59:18.
12. Cheng ST, Ke CL, Lee CH, et al. Rainbow pattern in Kaposi's sarcoma under polarized dermoscopy: a dermoscopic pathological study. *Br J Dermatol.* 2009;160(4):801–809.
13. Rabate C. Prise en charge du sarcome de Kaposi post transplantation rénale en ile de France : analyse rétrospective de 89 patients. *Ann Dermatol Venerol.* 2013;140:404.

14. Frances C. Kaposi's sarcoma after renal transplantation. *Nephrol Dial Transplant*. 1998;13:2768e73.
15. Cheng TY, Hsiao CH, Chu CY. Generalized immunosuppression-associated type Kaposi's sarcoma in a patient with severe refractory bullous pemphigoid. *Dermatol Sinica*. 2008;26:85–92.