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Case Report

An Unanticipated Case of Kaposi Sarcoma in A Young Male

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ABSTRACT

A 30-year-old African American male with past medical history of hemorrhoids initially presented with intractable abdominal pain and changes in stool caliber. Thorough history and physical relieved multiple risk factors including high risk behavior, unintentional weight loss and extensive purplish-red skin lesions which prompted evaluation for complications of HIV/AIDS. Gastrointestinal biopsies confirmed the diagnosis of Kaposi Sarcoma (KS) secondary to AIDS.

KEYWORDS

Kaposi Sarcoma; HIV; Cellular proliferation; Hemorrhoids.

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Introduction

Kaposi Sarcoma (KS) is a vascular neoplasm that results from human herpesvirus 8 (HHV-8) and affects skin and mucosal surfaces. There are multiple different types including the classic typical affecting elderly individuals of Mediterranean or eastern European decent, endemic/African type normally seen in sub-Saharan African, Iatrogenic/immunosuppression-associated type and lastly the epidemic type which is also known as the human immunodeficiency virus associated form. The cumulative incidence of HIV-associated Kaposi sarcoma in the United States and Canada by the age of 75 years old in HIV-infected persons is 4.4 percent [1]. Due to the availability of antiretroviral therapy, the incidence has decreased in recent years from 8.22 per 1,000 person-years without antiretroviral therapy to 3.58 per 1,000 person years with antiretroviral therapy [2,3]. While the pathogenesis involving a specific mechanism remains unclear, it is thought that HHV-8 initiates cellular proliferation and inhibits tumor suppressor pathways [4]. Gastrointestinal spread has been associated in approximately 40 percent of patients; although manifestations can occur independently of cutaneous disease [5,6].

Case Presentation

This is a case of a 30-year-old African American male with past medical history of hemorrhoids who initially presented due to intractable abdominal pain. He was previously evaluated for similar complaints but was lost to follow up after receiving an abdominal CT at that time. Notably, he recently experienced forty-pound unintentional weight loss and a change in stool caliber to a "ribbon like nature". Patient has been sexually active with more than five male partners in the last year; however, his last sexual transmitted infection (STI) & human immunodeficiency virus (HIV) panel were done several years ago. At time of admission, he was also found to have multiple irregularly-shaped, painless, purplish-red macules, and plaques lesions approximately 1cm in size all over his

body, including bilateral upper extremities and back. Additionally, an erythematic ulcerative 2cm mass was found on the right side of his hard palate. Significant lymphadenopathy approximately 5cm in size throughout bilaterally: submental, submandibular, preauricular, occipital, cervical and inguinal regions. The patient's abdominal CT with contrast showed findings consistent with a rectosigmoid neoplasm with perirectal lymphadenopathy (Figure 1a) that has progressed since prior imaging, as well worsening inguinal adenopathy (Figure 1b) and lower pulmonary findings possibly representing metastatic disease (Figure 2). Patient was subsequently diagnosed with AIDS, with a cluster of differentiation (CD4) count of 236. For the duration of his hospital course, he was followed closely by gastroenterology, infectious disease and hematology oncology services. Patient was started on highly active antiretroviral therapy (HAART). Biopsy of rectal and colonic masses confirmed the diagnosis of Kaposi Sarcoma. Patient was discharged on HAART with close follow up from infectious disease for continual management.

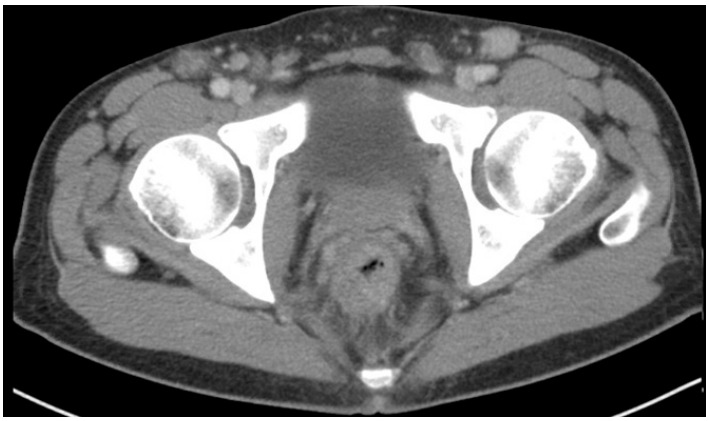

Figure 1a: Rectal mass with marked eccentric thickening of the rectum along with perirectal lymphadenopathy with lymph nodes exceeding 1 cm.

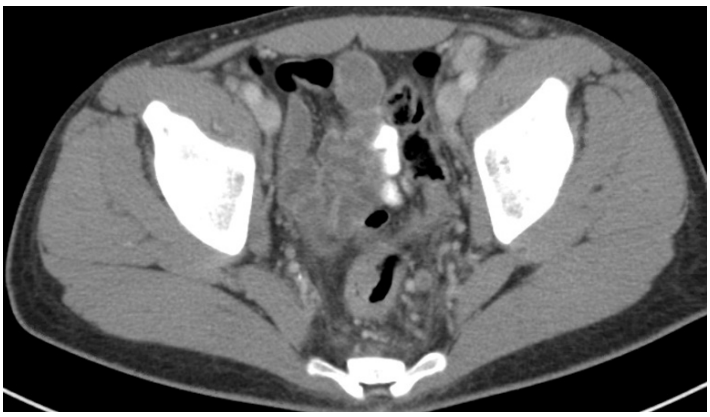

Figure 1b: Lymphadenopathy showing involvement of the external iliac chain of lymph node bilaterally.

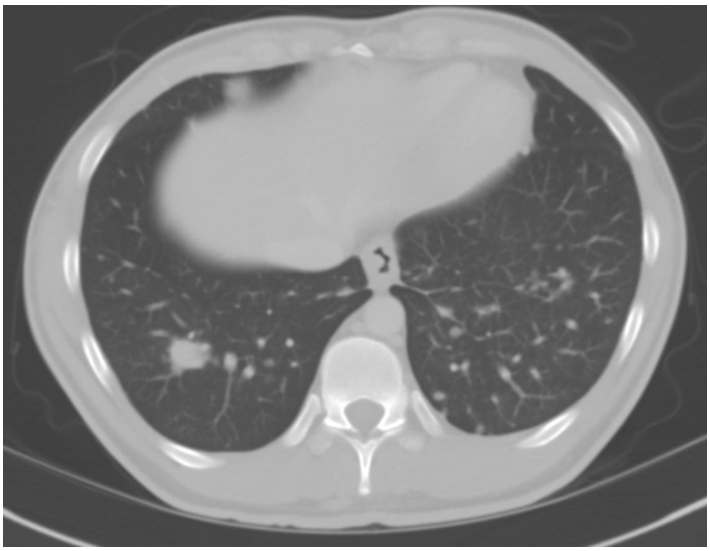

Figure 2: Lung bases demonstrate multiple nodular densities from the mid-lung zones downward with the largest density measuring 2 cm.

Discussion

Though the diagnosis of Kaposi Sarcoma is based predominately on its clinical presentation, history and risk factors, a patient's CD4 plays a significant role.

It appears to be one of the most important factors for AIDS-related KS, with the rate of developing KS, increasing more than four times from CD4 counts of 200-340 compared to CD4 counts <200 [2]. This patient presentation and the systemic spread of this disease raises the question on whether he would benefit from additional inventions.

Management for epidemic Kaposi Sarcoma is mainly includes treatment with highly active antiretroviral therapy (HARRT) [7]. Additional therapies involve the use of human chorionic gonadotropin intralesional injection which could possible lead to regression of the lesions due to dose-related induction of apoptosis [8].

For patients with systemic involvement, some studies have suggested the benefit from use of systemic chemotherapy including combinations of pegylated liposomal doxorubin or bleomycin/ vincristine or paclitaxel either of these options with HARRT [9]. Treatment with such combinations demonstrates reduction in mortality and increased Kaposi sarcoma remission [9]. Pegylated liposomal doxorubin combined with HARRT may have more of an effect than interferon alfa-2, but it is possibly as effective as paclitaxel in terms of survival and tumor response [10,11]. Paclitaxel has been shown to be more effective than bleomycin plus vincristine or etoposide [11]. There are also topical options that are available, such as topical alitretinoin 0.1% gel, which can reduce the size of the lesion [12].

Conclusion

Due to multiple risk factors as well as the patient's physical exam findings, the suspicion of Kaposi Sarcoma was high on the differential list. Therefore, continual workup including testing for HIV and CD4 counts were done. Although the rates of Kaposi sarcoma, have decreased due to advancements of medical management for patients with HIV, there still exists the possibility that patients may initially present with this disease independent of the official diagnosis of HIV or AIDs. Though diagnosis of KS may be delayed, several beneficial treatment options exist which can effectively decrease disease progression as well as patient mortality, even if staging is advanced at time of diagnosis.

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