Human Herpes Virus 8 Infection and Kaposi Sarcoma

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ABSTRACT

Kaposi sarcoma (KS), a tumor associated with human herpesvirus 8 (HHV8) infection, can manifest with cutaneous and/or visceral lesions. KS is classified into 4 subtypes including classical, endemic, iatrogenic, and AIDS-related KS. The mucocutaneous involvement in AIDS-related KS, the most common subtype during the AIDS era, frequently and rapidly progresses from solitary or few small lesions to multiple plaque and nodular lesions affecting the upper trunk, face, and oral mucosa. KS in non-HIV-infected immunocompetent individuals is very rare, especially in Thailand, a non-endemic country. The mode of treatment of KS varies, depending on the subtype, the extent of lesions, and the presence or absence of visceral involvement. Antiviral therapy is generally of no proven benefit in the treatment of KS. Radiotherapy, cytotoxic drugs, (such as liposomal anthracyclines, paclitaxel, vinca alkaloids, and bleomycin), or biologic agents including interferon alfa, is the treatment of choice of KS. (*J Infect Dis Antimicrob Agents 2015;32:77-81.*)

INTRODUCTION

Kaposi sarcoma (KS) was first described as idiopathic multiple pigmented sarcomas of the skin by Moritz Kaposi, a Hungarian dermatologist at the University of Vienna, in 1872. Later on, Chang and colleagues discovered human herpesvirus 8 (HHV-8), a member of Herpesviridae family, also known as Kaposi sarcoma-associated herpesvirus (KSHV) or KS agent, as the causative agent of all subtypes of KS. KS is a rare neoplasm of lymphatic endothelial cells, frequently manifesting as multiple vascular cutaneous and mucosal lesions. The involvement of lymph nodes and viscera is frequently observed in immunocompromised patients, especially those with HIV infection or receiving immunosuppressive therapy. Apart from the etiologic agent of KS, KSHV or HHV-8 can cause primary pleural effusion lymphoma, and multicentric Castleman's disease. The clinical course of KS varies, ranging from the indolent course with a only few small skin lesions to the fulminant course with extensive skin and visceral lesions. KSHV is a herpesvirus that can establish the life-long infection in B lymphocytes. The skin lesions in KS frequently begin as violaceous and later evolve into a brown color due to hemosiderin deposition, and have several morphologies including macular, patch, plaque, nodular, and exophytic lesions. Non-HIV KS is considered a rare disease, but the incidence varies according to several factors including the race, gender, age, and immune status of the patients.