5. Sexually Transmitted Infections

Kaposi sarcoma lesions respond differently to therapy in HIV-infected and noninfected patients


Objective: To evaluate the human herpesvirus 8 (HHV-8) expression and immune response in cutaneous lesions of classic KS (CKS) and AIDS-associated KS (AIDS-KS).

Background and methods: Kaposi sarcoma (KS) is associated with HHV-8. The cutaneous immune response in this tumor is not well established and a better understanding is necessary. A quantitative immunohistochemical study was performed of cells expressing HHV-8 latency-associated nuclear antigen (LANA), CD4, CD8, and interferon (IFN)-γ in skin lesions from patients with CKS and AIDS-KS (with or without highly active antiretroviral therapy [HAART]).

Result: CKS showed higher LANA expression than AIDS-KS, regardless of HAART. Higher LANA expression was also found in nodules than patch/plaque lesions. The tissue CD4 + cell proportion was lower in AIDS-KS patients without HAART than in patients with CKS. In CKS lesions, CD4 + and CD8 + cells expressed IFN-γ, as shown by double immunostaining. AIDS-KS presented low numbers of IFN-γ-expressing cells. CD8 + cell numbers were similar in all groups, which appeared unrelated to the clinical or epidemiological type of KS.

Conclusion: The quantitative data on the pattern of KS lesions in selected groups of patients, as shown by in situ immune response, demonstrated a CD4 + T-cell involvement associated with IFN-γ, an environment of immune response-modified human immunodeficiency virus (HIV) infection. The promotion of KS in patients without HIV appeared to be related to higher HHV-8 load or virulence than in those with AIDS. This higher resistance may be explained by a sustained immune response against this herpesvirus, that is only partially restored but effective after HAART.

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ESSENCE

Penile intraepithelial neoplasia is frequent in HIV-positive men with anal dysplasia


Anogenital human papillomavirus (HPV)-infection is common in HIV-infected men who have sex with men (HIV + MSM). These patients have a strongly increased risk of HPV-induced anal cancer and its precursor lesion, anal intraepithelial neoplasia (AIN), and a moderately increased risk for penile cancer. Only limited data exist on penile intraepithelial neoplasia (PIN) in HIV + MSM. This study determined the prevalence and evaluated the virologic characteristics of PIN and AIN in 263 HIV + MSM. In case of histologically confirmed PIN (and AIN), HPV-typing, HPV-DNA load determination, and immunohistochemical staining for p16INK4a were performed. PIN was detected in 11 (4.2%) and AIN in 156 (59.3%) patients. Ten PIN patients also had AIN within the observation period. Four clinical types of PINs could be distinguished. High-risk—HPV-DNA was found in 10 PIN lesions, with HPV16 being the most frequent type. Infections with multiple HPV-types were common. All high-grade lesions had high-risk-HPV-DNA-loads ≥1 HPV-copy/β-globin-gene-copy. In conclusion, all HIV + MSM should be screened for PIN in addition to AIN screening.