

VIRAL LOAD DYNAMICS OF HIV RELATED KAPOSI SARCOMA

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Kaposi sarcoma (KS) is a cancer most common in sub-Saharan Africa and in HIV infected patients, even after the introduction of highly active antiretroviral therapy (HAART). It is caused by human herpes virus type 8 (HHV-8) and transmitted either sexually, via blood, organs or saliva. We study the tumor-immune interactions *in vivo* in the presence of both HIV-1 and HHV-8 infection. Since treatment is now recommended to be based on viral load, our model accounts for the effect of infected cell populations in order to yield a better understanding of the interactions between KS and immunodeficiency. Numerical simulations and sensitivity analysis are carried out.

REFERENCE

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