

## Liposomal Doxorubicin Plus Interleukin-12 for AIDS-Related Kaposi's Sarcoma

**K**aposi's sarcoma (KS), a disease characterized by the development of malignant tumors usually in the lower extremities, is a major complication of HIV/AIDS. KS continues to be a problem even with the use of highly active antiretroviral therapy (HAART), today's standard of care for patients with HIV/AIDS. CCR investigators recently investigated the effects of interleukin-12 (IL-12) on this malignancy in HIV/AIDS patients when combined with pegylated liposomal doxorubicin, an anthracycline. The findings appear in the September 10, 2007, online edition of *Blood*.

Richard F. Little, M.D., M.P.H., the study's principal investigator, Robert Yarchoan, M.D., Chief of the HIV and AIDS Malignancy Branch, and their colleagues found that a regimen consisting of six 3-week cycles of pegylated liposomal doxorubicin plus IL-12, followed by IL-12 twice weekly for up to 3 years, in patients who were also receiving HAART, led to substantial KS tumor reduction. The regimen was well tolerated and associated with a high response rate. The responses were also sustainable with IL-12 maintenance therapy after completion of the combined therapy. Further tumor responses were observed during the IL-12 maintenance therapy.



**Kaposi's sarcoma lesions most often develop in the patient's feet because they are often hypoxic (low oxygen). This condition induces replication in cells infected with Kaposi's sarcoma-associated herpes virus.**

While therapies for KS are available, they are not always effective and can be associated with cumulative toxicity. For these reasons, the study by Little, Yarchoan, and colleagues is important because it suggests that IL-12 can enhance the activity of pegylated liposomal doxorubicin and also has activity by itself against AIDS-related KS, particularly aggressive KS, on which HAART alone has a limited effect. A randomized trial of IL-12 is warranted to confirm these results.

### Reference

Little RF, Aleman K, Kumar P, Wyvill KM, Pluda JM, Read-Connoles E, Wang V, Pittaluga S, Catanzaro AT, Steinberg SM, Yarchoan R. Phase II study of pegylated liposomal doxorubicin in combination with interleukin-12 for AIDS-related Kaposi's sarcoma. *Blood* Sep 10, 2007 [Epub ahead of print].