



National Institute of Allergy and Infectious Diseases

Update

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ANTIVIRAL DRUG PROMISING AGAINST EYE INFECTION IN AIDS PATIENTS; ALSO HAS ANTI-HIV EFFECT

Scientists at the University of California, San Francisco, have reported that intermittent, intravenous doses of the antiviral drug foscarnet can halt the progression of cytomegalovirus (CMV) retinitis, a dangerous eye infection common in patients with AIDS, and appears to inhibit the activity of human immunodeficiency virus (HIV), the cause of AIDS.

If untreated, CMV retinitis results in progressive eye damage and can cause irreversible blindness. Dr. Mark A. Jacobson and his colleagues found that using intermittent rather than continuous therapy reduced the serious side effects previously reported in studies of foscarnet, and was as effective as continuous infusion.

The research, which was supported by the National Institute of Allergy and Infectious Diseases, Bethesda, Md., was reported at the Fourth International Conference on AIDS, Stockholm.

Dr. Jacobson and his colleagues administered intravenous foscarnet 2 out of every 8 hours, for 14 days, to 10 AIDS patients with newly diagnosed CMV retinitis. At the end of the 14 day trial, 9 patients had either improved or had developed no increase in the size or number of retinal lesions. Evidence of CMV in their urine or blood disappeared in 8 patients.

Seven patients continued to receive maintenance doses of foscarnet 5 days a week. Of these patients, the disease remained stable after 20 weeks of therapy; however, retinal lesions

increased in size after 2 to 11 weeks in 5 patients. Retinitis could not be evaluated in one patient because of retinal detachment. During maintenance therapy, most blood and urine cultures showed no CMV. Drug toxicity was mild and infrequent.

In 6 patients who had detectable HIV antigen in their blood prior to therapy, levels of antigen decreased significantly after 14 days on foscarnet. The virus was cultured from the blood of 8 patients before treatment; after treatment 2 of these patients were HIV culture-negative. Antigen levels rose when patients were placed on maintenance therapy.

Cytomegalovirus, a member of the herpesvirus family, is so common that most people become infected in the normal course of their lives. Usually, the infection is kept in check by the immune system, causes no symptoms, and survives in the body in a latent form. In people whose immune systems are not functioning properly, such as persons with AIDS, the virus can cause serious illness.

More than 90 percent of patients with AIDS are infected by CMV. Retinitis is often the first sign of invasive CMV, but the virus can also affect the gastrointestinal tract, lungs, liver, and central nervous system. An experimental drug called ganciclovir can also control CMV retinitis, but it also causes serious and sometimes dangerous side effects. With either foscarnet or ganciclovir, the disease recurs when treatment is stopped.

The University of California at San Francisco is part of an extensive network of AIDS treatment research centers supported by the National Institute of Allergy and Infectious Diseases.

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