
A novel approach to herpes treatment

Viruses of the herpes family are responsible for an incredible number of human afflictions — cold sores, mononucleosis, eye infections, blindness, brain damage, cancer and possibly even heart disease. What's more, genital herpes virus infections are now the second most common venereal disease in the United States, causing skin inflammation in the genital area and presenting a serious risk to fetuses that come into contact with herpes lesions while passing through the birth canal. Currently only two drugs for herpes maladies are available — for surface treatment of herpes eye infections and for systemic treatment of herpes simplex encephalitis (SN: 11/4/78, p. 309).

What is needed is an effective, safe and broadly applicable treatment for herpes infections, and such a treatment may well have been found, according to a report by Mobile, Ala., allergist Joseph B. Miller, in the May *ANNALS OF ALLERGY*. The treatment he reports on consists of under-the-skin injections of commercially available flu vaccine.

A decade ago, during a flu epidemic, Miller gave under-the-skin injections of flu vaccine to flu victims in an attempt to prime their immune systems and relieve flu symptoms. (Usually vaccines are given to prevent disease, not to treat them after the fact.) The injections did help relieve patients of their symptoms and Miller has since treated other viral infections. He now reports that the injections appear to be especially effective in treating herpes.

During the past four years Miller has given the injections of flu vaccine to 61 patients with various kinds of herpes infections (or has instructed them in how to give themselves injections at home). Clinical observations and tests on these patients, as well as their own subjective reports, indicate that 59 of the 61 have had a favorable response to the injections, such as clearing of both local and systemic symptoms, lesion healing and decreased recurrence of lesions and symptoms. The injections, Miller reports, are especially effective against herpes infections of the eyes, lips, mouth or brain, although they are fairly effective against genital herpes.

Whether such treatment successes constitute cures is doubtful, since herpes virus infections tend to be life-long. What usually happens, it appears, is that the viruses remain dormant in the axons of nerves for months or even years, then emerge from the nerves to infect tissues the nerves innervate. The immune system has a tough time reaching the viruses and destroying them before they retreat into nerves. Nonetheless, injections of flu vaccine do appear capable of triggering a patient's immune system so that it can prevent or minimize recurrent viral ex-

pression in various tissues.

Even if injections of flu vaccine can only bring about disease regression and symptomatic relief, they should still be a boon to the thousands of herpes victims who currently have no treatment available to them. The challenge now is to prove the value of the treatment in carefully controlled clinical trials. Miller is trying to interest some medical centers in undertaking such studies, particularly investigations that would clarify the injections' greater or lesser effectiveness against specific herpes afflictions. □

Sex differences: Right brain envy

A study of brain hemisphere performance suggests that steps toward equality of the sexes might be taken as early as the preschool years. Purdue University researchers report that by the time a boy reaches high school, his brain appears to be more functionally balanced than that of a girl. The scientists trace the source of the discrepancy back through elementary education all the way to the playpen.

The Purdue team examined the performances of 38 high school students on two sets of spatial (imagery) tests and two analytical/linguistic tasks. The right brain is believed to be associated with the processing of images, music, faces and other nonverbal input, while the left appears to deal with words, numbers and analytical thought. Results of the tests, and of patterns recorded through electrodes positioned on the students' scalps, indicated that "the girls tended to use their left hemispheres in processing all the tasks, and much more so than boys on spatial tasks," says mathematics education professor Grayson H. Wheatley, who conducted the study with O. Robert Mitchell, assistant professor of electrical engineering, and Susan Willis, a graduate student.

While the girls performed all their tasks on the four tests primarily using their left hemispheres, "the boys appropriately used the left hemisphere for the analytical/linguistic tasks and the right hemisphere for the spatial tasks," say the scientists. The data came from electrodes placed above each half of the brain's temporal region (a center for language processing) and the parietal area (an image processing site).

Wheatley says that "part of the reason [for the boy-girl difference] may be that boys are encouraged from an early age to do activities which develop spatial performance, such as playing with blocks or toys requiring large muscle activities. But girls tend to read earlier, and there's more symbolic processing with them at an earlier age." This suggests, he says, "that girls could improve their spatial performance by being trained to approach such tasks... using the right hemisphere." □

Crude cooperation

Two agreements between American nations with vast heavy-crude and tar-sand deposits were signed at a United Nations heavy-oil conference in Edmonton, Canada, this week. A \$276,000 two-year program to measure and study the release of gases, such as hydrogen sulphide — formed when steam is injected into heavy-oil deposits—is the first result of an accord signed by the governments of Venezuela and Alberta (Canada). INTEVEP (the Venezuelan Institute of Petroleum Technology) will pick up half the cost, with Petro Canada Ltd. and the Alberta Oil Sands Technology and Research Authority each picking up 25 percent. Each gains exclusive rights or licensing powers to the technology. In the second agreement, two Provincial Canadian governments and AOSTRA joined the U.S. Department of Energy for an exchange of information (and staff) on the development of enhanced recovery techniques for unconventional, heavy very viscous oils. □

More Harrisburg studies

Four studies investigating potential health effects of the accident at the Three Mile Island nuclear plant near Harrisburg, Pa., were announced last week by the Department of Health, Education and Welfare and the State of Pennsylvania. "These projects will not provide final answers concerning the health effects of the Three Mile Island incident—and they surely will not answer the broader questions about the extent of the health risks associated with nuclear facilities generally," said HEW Secretary Joseph A. Califano Jr. "They are, however, a start."

Vital statistics and health data on each of the 50,000 persons living within five miles of the plant during the accident — together with information relevant to determining how much radiation they might have been exposed to, will be collected in a \$300,000 program funded by the Center for Disease Control and National Cancer Institute. Women living within 10 miles of the plant who were pregnant at the time of the accident will be studied in an \$80,000 program funded by the Health Services Administration. Researchers will concentrate on premature births, spontaneous abortions, infant deaths and abnormal child growth, development and disease. Random persons living within five miles of the accident site will be interviewed as to how they coped with the accident's social and psychological impacts in a \$100,000 study by the National Institute of Mental Health. Finally, a registry of workers at the Three Mile Island plant and a description of their radiation exposures will be put together by the National Institute of Occupational Safety and Health together with the Nuclear Regulatory Commission. □