

MEDICINE

Virus Attack on Cancer

Egypt Virus 101 gave temporary relief to four out of 26 hopelessly sick patients, but did not destroy all the cancer cells.

► THE VIRUS attack on cancer has progressed to the point where four out of 26 hopelessly sick patients were helped temporarily. The cancers in these four showed a "substantial" decrease in size, scientists of Sloan-Kettering Institute, New York, reported.

The idea of using viruses to stop cancer is not new. It is based on findings for over half a century of occasional cancer patients showing improvement during the course of or after some germ-caused disease. (See SNL, Oct. 13, 1951).

At Sloan-Kettering the scientists have been trying to find viruses which would destroy cancer without causing sickness in the patient. The virus which helped four patients was Egypt Virus 101, obtained from the National Foundation for Infantile Paralysis.

Portions of the cancer tissue in three of these patients were removed and examined under microscope at intervals during the trial. Before administration of the virus, the cancer tissue examined was growing vigorously. After the virus had caused infection, the cancer tissue showed extensive damage.

Not all the cancer cells had been destroyed, however. A few living ones could be seen. As the trial progressed the patient became immune to the virus infection. The remaining living cells then multiplied with great rapidity and all those cancer cells which had been destroyed by the virus were replaced.

Immunity, the production by the body of antibodies which inhibit the multiplication

of a virus and cause it to die, precludes the re-use in the same patient of a particular virus or one closely related to it. The antibodies prevent reinfection.

The eventual effective virus treatment of cancer, therefore, requires the development of many unrelated viruses, each trained by long adaptation to destroy a particular type of cancer.

In the meantime the investigators working on this project are trying to reinforce the ability of Egypt Virus to destroy completely certain types of cancer by passing it through human cancer tissue being grown in experimental animals.

The scientists state that there "is as yet no proof whatever that a curative virus for man can be developed—but only hope for such an outcome based upon the experiments here reviewed."

They caution, "that, whereas very limited and transient effects in the restraint of two forms of cancer in man have been achieved under experimental conditions by virus infection, these results are not generally applicable to the treatment of patients."

Science News Letter, May 17, 1952

TECHNOLOGY

Flameless Fuel Heats G.I. Rations

► A FLAMELESS fuel unit to heat soldiers' combat rations in the field without producing tell-tale smoke that might give the soldiers' positions away has been developed by the U. S. Army Quartermaster Corps.

The flexible unit is wrapped around each can of field rations and is lighted with a match. It burns evenly without flame and heats the contents of the can to the proper temperature.

Ration heaters now being used burn with a flame that must be shielded from the wind. They also generate smoke hazards that might disclose the soldier's whereabouts to the enemy. When rations are frozen, sometimes present-day heaters will not warm the food satisfactorily.

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