

MEDICINE

Virus May Cause Cancer

Also being studied are the possible relation of diet to cancer and the effect of spleen tissue on cancer. Successful control now held more likely.

► HOPE of success in controlling cancer "within a reasonable time" is held by scientists at the Clayton Biochemical Institute of the University of Texas.

Evidence from their studies tending to show cancer is caused by a virus or virus-like substance is the basis for this hope. At the same time, the Institute is not neglecting other avenues of approach to the problem, including the dietary one. A long-range research program is under way, Dr. Roger J. Williams, director, states in the second report of the Institute's cancer studies.

The virus theory is based on work by Dr. Alfred Taylor and associates. They have been able to produce breast cancers in mice with a virus-like material obtained from the yolk-sacs of chick embryos previously inoculated with extracts of mouse cancer tissue. After the cancer tissue had been growing on the yolk-sacs for a time, the yolk, cancer, blood and fluids of the egg were treated in various ways, including filtration through a fine filter, to remove all cancer and

other cells. Only a virus is small enough among living organisms to go through such a filter. Consequently when healthy mice developed cancers after injection of this material, the scientists felt certain it was a virus that caused the cancer.

Latest efforts have been to develop methods for obtaining this cancer-producing material such that the results can always be duplicated and then to develop methods for studying the virus. If this research shows that the cause of cancer is a virus, there is hope that methods of controlling it can be discovered.

Still in the early stages are the studies of the possible relation of diet to cancer and of the effect of spleen tissue on cancer. Spleen cells, Dr. R. E. Hungate and Miss Hester Snider find, always show a tendency to slow or check the growth of cancers in eggs. This finding which supports that of other scientists is considered important because it emphasizes a technique with which a killing of cancer cells by other cells can be studied.

Science News Letter, June 2, 1945

MEDICINE

Pneumonic Plague Remedy

Sulfadiazine treatment is credited in part for the recovery of one patient. Thiouracil helped seven out of 10 with angina pectoris.

► NEW SUCCESSES in treating pneumonic plague, heart disease and psittacosis are reported in the *Journal of the American Medical Association* (May 26), which also reports success with penicillin treatment of neurosyphilis.

Thiouracil, a chemical which suppresses the thyroid gland hormone, helped seven out of 10 patients with angina pectoris, Dr. Wilhelm Raab, of the University of Vermont College of Medicine, reports.

Symptoms were completely relieved in four of the patients during treatment. One was only slightly improved, while two were not helped and died. The treatment is effective in the same way that removal of the thyroid gland helps some patients with angina pectoris. It has the

advantage of not involving a major surgical operation. The thyroid hormone, Dr. Raab believes, sensitizes the heart muscle to the oxygen-depriving toxic action of epinephrine, one of the adrenal gland hormones. When the thyroid is removed by operation or suppressed by thiouracil, the heart is protected.

Sulfadiazine treatment is credited in part for the recovery of the pneumonic plague patient. He was a physician engaged in plague research with the U. S. Public Health Service, in the course of which he contracted the disease. No one knows how this accident occurred.

He suffered from the pneumonic form of the disease. Recovery from this is so rare "that for all practical purposes the disease is considered fatal," Dr. Edgar J.

Munter, U. S. Public Health Service, points out in his report.

The disease was recognized within 26 hours after its start and treatment started at once. The patient had had a large amount of plague vaccine the year before. This, plus the modern treatment facilities and excellent nursing, probably played a part in his recovery. The disease did not spread to anyone else.

Penicillin, previously found effective in protecting laboratory mice against psittacosis, is credited with helping a human patient to recover in the case reported by Drs. Harrison F. Flippin, Michael J. Gaydosh and William V. Fittipaldi, of Philadelphia.

Science News Letter, June 2, 1945

PUBLIC HEALTH

Cases of "Diaper Rash" Traced to New Antiseptic

► FIVE cases of "diaper rash" have been traced to a new antiseptic solution used by a diaper service, Dr. William L. Dobes, of Atlanta, Ga., has reported. (*Journal, American Medical Association, May 26*)

The solution, marketed under a trade-name, was used as the final rinse by the diaper service. The company making the rinse claims, Dr. Dobe states, "that its purpose is to make textiles actively antiseptic as a protection to persons and as a prevention of destruction of textiles by bacteria, germs, mold and mildew."

The chemical is "a primary skin irritant in strong concentration and a sensitizer in weak concentrations," a U. S. Public Health Service official informed Dr. Dobes.

A commercial testing company has reported testing samples of cotton fabric treated with the chemical. No irritated areas developed on any person on whose skin these samples were placed for 48 hours, removed for 24 hours and replaced for another 48 hours.

Dr. Dobes made the same kind of test on one of his patients with one of the diapers treated with a much weaker solution of the chemical. The test was positive after 24 hours.

When mothers of babies who had the diaper rash used their own diapers instead of those from the diaper service, the rash cleared up in three to seven days. It came back immediately when the babies started wearing diapers from the diaper service.

The diaper service was very coopera-