

Medical Sciences Notes

LEUKEMIA

Two Leukemias Related

The kind of leukemia that attacks adults—a chronic type that involves bone marrow—is now shown to be related to the acute kind that kills children. And both appear to be virus-caused.

The findings occurred when, for the first time, blood cells from a patient with CML, or chronic myelogenous leukemia, were grown in long-term culture by scientists at the National Cancer Institute, Bethesda, Md.

Both the abnormal Philadelphia chromosome that is characteristic of CML, and a type of virus particle frequently found in other human leukemia cells were found in the new culture.

Herpes-like virus particles—the same as those causing fever blisters—were found in a significant number of cells that were structurally the same as those found by other investigators in a culture of acute myelogenous leukemia cells. They were also found in several cultures of cells from patients with Burkitt's lymphoma, a type of cancer that occurs frequently in African children.

Still cautious about an outright statement that a virus causes leukemia, the researchers say that "observation of similar virus particles and cell changes in both chronic and acute myelogenous leukemia lines suggest that the two leukemias are related and may be caused by viruses of the same family group."

Scientists in the National Cancer Institute who reported the new findings in the December NCI Journal were Linda S. Lucas, Robert A. Manaker and Victor H. Zeve of the viral biology branch, and Jacqueline J. K. Whang, medicine branch.

TUBERCULOSIS

Cows get TB From Owner

Fifteen cows of 100 in a Broome County, N.Y., herd got tuberculosis from their owner, who had originally contracted the disease from another dairy herd in 1947. People have been known to catch TB from animals before; the reverse is unusual.

The rare man-to-animal switch was reported at the New York State Veterinary College at Cornell University, Ithaca, by Dr. N. Bruce Haynes, writing in *Veterinary Topics*, an extension publication circulated to veterinarians.

Bovine tuberculosis is a rare disease, Dr. Haynes said. In the past five years, only six cases of pulmonary type of bovine TB were reported in the U.S. among humans.

There are three types of tuberculosis: bovine, which is most common among cattle; human, mainly confined to the human species; and avian, which, although transmitted by poultry, can attack swine and cattle.

ATHEROSCLEROSIS

Gas Jet to Clean Arteries

The life of a 44-year-old mother of three was probably saved in an operation reported to be the first in which a gas jet "cleanout" of dangerous obstructions within the coronary artery was used. She had had two previous heart attacks—the second one only six weeks before the surgery.

The surgeons who performed the operation January 5 at King's County Hospital, Brooklyn, were the same ones who originated the gas jet cleanout, and a year ago they revealed that it had proved successful in clearing arteries of the neck, abdomen and legs in life-threatening vascular disease conditions. The present operation is their first use of the jet within a coronary artery, however.

Dr. Philip Sawyer, of the State University of New York Downstate Medical Center, Brooklyn, senior surgeon of the team, told the New York Surgical Society meeting at the N.Y. Academy of Medicine, that he used jets of carbon dioxide gas to separate fatty, thickened, inner layers in the arteries.

Dr. Sawyer has reported his first use of the technique, called gas endarterectomy, to the same surgical group. He was assisted by Drs. Martin Kaplitt and Sol Sobel as well as by a group of surgeons in the Downstate surgical service.

CIGARETTE LABELING

LBJ Favors New Cigarette Labels

President Johnson last week endorsed proposed legislation to require tar and nicotine levels on cigarette packages and in cigarette advertising.

Senate Commerce Committee Chairman Warren G. Magnuson plans to reintroduce a bill that died when Congress adjourned last session. Public listing of these levels is expected to force competitive cigarette manufacturers to develop new and better ways of reducing the quantities of harmful tars and nictines entering smokers' lungs.

When the Surgeon General's report on smoking came out two years ago there was little conclusive evidence that tars and nictines were the culprits. Last June, however, the Public Health Service reversed itself, saying "the preponderance of scientific evidence strongly suggests that the lower the 'tar' and nicotine content of cigarette smoke, the less harmful are the effects."

Whether cigarette companies publish these levels or not, the Federal Trade Commission plans to do so and is considering various possible test methods to measure tar and nicotine content most accurately and realistically. Any levels FTC publishes must clearly tell the buyer how much tar and nicotine he will be inhaling if he smokes a particular brand, Chairman Paul Rand Dixon told a hearing last month. Filters and non-filters need to be tested by methods that make comparison of the two sound, and interestingly enough, filter cigarettes are not always less potent than their non-filter counterparts.

ANTIBIOTIC RESIDUES

Leftovers in Milk Unsafe for People

Cows cannot take drugs that may be harmful to people, and so the Food and Drug Administration has requested the recall of four products leaving antibiotic residues in cows' milk intended for human consumption.

Among the products are neomycin and dihydrostreptomycin, used to treat mastitis in dairy herds. Antibiotic residues can produce resistant strains of disease causing organisms in humans which could sharply cut down the effectiveness of antibiotic treatment in event of illness.