

MEDICINE

Slows Lymphatic Cancer

► ONE FORM of lymphatic cancer has been slowed down by a combination of three drugs given to laboratory animals, it was reported.

Chemical warfare against cancer through use of one of the drugs, beta-3-thienylalanine, or B3TA, was reported in 1956 by Dr. Robert W. Wissler, chairman of the department of pathology, University of Chicago.

With Dr. Zdenek Hruban, who was working under the National Cancer Institute, National Institutes of Health, Dr. Wissler has now advanced research with B3TA and two other drugs.

Desoxyypyridoxine or DB6, an anti B-6 vitamin, and phenylpyruvate, a protective chemical for normal cells, are the other drugs combined with B3TA.

B3TA, which is an amino acid analogue and protein growth antagonist, was the basic component of their study. This drug has the ability to slow down tumor growth without damaging cells of such organs as bone marrow, testes and intestinal walls in rats.

Combining B3TA and DB6 produced an additive effect on tumor weight, with laboratory findings of tumors weighing only about a fourth of those untreated. With either drug individually, the weight reduction was only about 50%.

The third drug, phenylpyruvate, was added in small amounts when an undesirable side effect of the other two drugs weakened the experimental animals.

The scientists said the three-drug combination reduced the weight of an experimental tumor called Murphy-Sturm lymphosarcoma and that when the drugs were stopped, the growth resumed.

Although the combination "appears to be promising in the treatment of lymphomas," they said to obtain a tumor regression it apparently "will be necessary to inhibit the tumor transaminases (enzymes that change the state of amino acids) more specifically."

Dr. Hruban is now an American Cancer Society Clinical Fellow.

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MEDICINE

Deaths From Infection

► MORE THAN 100,000 deaths from infectious diseases or processes are reported each year in the United States. Only the three major chronic diseases—heart disease, cancer and cerebral hemorrhage—exceed infections as a cause of death.

Blood poisoning, or septicemia, increased threefold during the 11-year-period from 1949 through 1959, Dr. Carl C. Dauer, medical adviser to the chief, National Office of Vital Statistics, Public Health Service, reported.

"During the same period," Dr. Dauer said, "the number of deaths from staphylococcal septicemia increased sevenfold, and deaths from other specified types and from unspecified types, about threefold."

Dr. Dauer called on physicians to be specific in certifying the cause of death. He

said the "specified" category he mentioned included deaths by such bacterial agents as *Escherichia coli*, an intestinal organism; *Pseudomonas*, which includes the organism producing blue pus; and *Klebsiella*, a genus characterized by heavy mucoid growths.

Influenza, bronchitis and pneumonia deaths have remained high, and kidney infections have increased as a cause of death since 1951, Dr. Dauer reported.

"Between 1957 and 1958 mortality from meningitis rose ten percent," he said. This is 20% to 30% higher in the United States than in England and Wales. It occurred mainly in infants under one year old.

Infants and older persons have succumbed to the majority of these infections, with a low death rate in the intervening ages.

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PHYSIOLOGY

Faulty Thyroid Test

► IN A CHILD with a normal thyroid, laboratory tests can be in error, showing that the gland is overactive. This wrong answer occurs if the child's mother had her gall bladder X-rayed long before he was born.

Dr. Robert Shapiro, of Yale University School of Medicine and the Hospital of St. Raphael in New Haven, Conn., reports that an iodine compound, iophenoxic acid, a radio-opaque substance drunk by patients about to have their gall bladders X-rayed, is the source of the trouble.

This substance is concentrated in the gall bladder at the time of the X-ray, but it

later enters the blood stream and becomes part of certain protein molecules, called protein-bound iodine.

The amount, or level, of protein-bound iodine in the body is included in the test for overactive, or underactive, thyroid gland, since the thyroid normally is the only source of this substance.

The strange facts about the iophenoxic acid are that it can remain in the body as long as 33 years and can cross the placental barrier, the connection between mother and child during gestation. Thus, not only the mother, who actually drank the acid, but also the child, who received it indirectly

from the mother, will have an abnormally high protein-bound iodine level, which would be taken as a sign that the thyroid is working overtime.

Dr. Shapiro reports in the *New England Journal of Medicine*, 264:378, 1961, that this was the case in 51 mothers and their 63 children.

Since the iophenoxic acid can distort the thyroid picture, Dr. Shapiro believes that it should be discontinued as an aid in gall bladder X-rays.

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MEDICINE

Wart Cures Explained By Spontaneous Immunity

► OLD WIVES' TALES of wart cures can be explained by spontaneous immunity.

Dr. E. Richard Harrell, University of Michigan Medical Center, told the annual clinical conference of the Chicago Medical Society in Chicago that the mysterious and illogical wart "cures" some persons have experienced may be due to relative immunity.

The dermatologist said the virus responsible for the skin growth does not appear to be infectious to all human beings but that the virus may be contagious and initially acquired from a human source.

The wart virus is distributed almost everywhere, Dr. Harrell said, but those who do not have the virus growing on their skin, or those who have previously had such infection undergo spontaneous disappearance, have acquired a state of relative immunity.

The viral cause of these skin growths is well established, Dr. Harrell explained. During the past two years the wart virus has been maintained in tissue culture and has been photographed by the electron microscope.

Although warts on the back of the hand can be easily eliminated, eradication of others may be difficult. For example, the plantar wart, so named because it is on the underside of the foot, grows inward because of its position on a weight-bearing surface.

Also difficult to remove may be the wart growing around a fingernail because it goes deeply into the tissue and may extend beneath the nail plate.

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MEDICINE

Rare Postmortem Cesarean Successful

► THE SUCCESSFUL cesarian delivery of a four-pound, nine-ounce girl after the death of her 28-year-old mother is reported in the *Journal of the American Medical Association*, 175:715, 1961.

Dr. John W. Ritter of Seattle, Wash., states that in the past 250 years, only 120 successful postmortem cesarians are known to have been performed. He said the child is now four years old and shows no mental or physical defects.

The mother died of rheumatic heart disease.

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