

Cancer Congress Reports

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as it is in the U.S. and other countries, but worldwide figures are inaccurate because of the impossibility of keeping records in some of the underdeveloped nations. The more civilized countries tend to report more cancer cases also because many infectious diseases, including tuberculosis, remain high on the list of killers in many parts of the world.

A flurry over a two-day discussion of the anti-cancer drug cruzin, not announced in the printed program, excited some of the Cancer Congress delegates. Prof. G. I. Roskin and other Soviet researchers in Moscow hold out hope that cruzin may become accepted as a new cancer treatment if proved nontoxic. The drug has been known as an extract of the parasite causing sleeping sickness since before World War II.

Progress in cancer research cannot be defined over-enthusiastically but perhaps most accurately in the words of Prof. L. A. Zilber of the Gamaleya Institute of the Academy of Medical Sciences in Moscow, who said, "We know the questions we have to answer."

• Science News Letter, 82:85 August 11, 1962

Anti-Smoking Campaign

► AN ANTI-SMOKING campaign for school children in Denmark has had almost as much effect on the parents as on children, Thor Cramer of the Danish Cancer Society told the International Cancer Congress in Moscow.

Children ten years old and through high school age have been educated in the dangers of lung cancer through booklets and posters reaching 600,000 youngsters. A general letter to parents was sent which, in many cases, appears to have resulted in less smoking at home.

A U.S. report on an American Cancer Society study of 22,000 high school students by J. W. Leverenz of Washington, D. C., revealed that one out of every four boys and one out of every eight girls smoke regularly.

As might be expected, teen-agers smoke more in families where both parents smoke, and the lowest number was recorded in families with non-smoking parents. The American Cancer Society had distributed a film strip "to smoke or not to smoke" in more than two-thirds of the country's 30,000 high schools and had conducted a youth conference on cigarette smoking.

Cancer education programs telling the public in many countries what research has shown about lung cancer and other forms of malignancy were reported.

Dr. John R. Heller of the Sloan-Kettering Memorial Cancer Center, New York, gave the final all-congress lecture on cancer control. Dr. Heller, who is chairman of the commission on cancer control, said the programs from most of the countries of the world are now available.

Dr. G. A. Zedgenidze of Moscow emphasized the different points of view presented at the International Cancer Congress, saying: "This is an interesting period in which

doctors are working in close cooperation with biologists, physicists, engineers, and specialists in technology. Getting together preeminent specialists from many countries to share their knowledge has been most valuable."

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Cobalt-60 With Surgery

► RADIOACTIVE reinforcement of the surgical attack on cancer is proving successful in both Russia and Sweden. Called actinosurgery, radioactive material is implanted during operations on the cancers and allowed to bombard curatively the malignant growth.

Sixty patients have undergone successfully this use of radioactive cobalt, Dr. I. T. Shevchenko, radiologist of Kiev, USSR, reported to the International Cancer Congress. The combination of radiation and surgery was tried on 180 animals before it was used on human patients.

The aim is to prevent recurrences and spreading cancer of the internal organs, including stomach, esophagus and intestine.

Cobalt was applied through special rubber drains, or radium holders, placed in the wound following the operation. The catheter with radioactive substance was removed after 24 to 48 hours and most patients recovered with little complication. During radiation the pancreas, liver and other organs were protected by lead-treated rubber.

A similar technique in Sweden was reported successful by Dr. Folke Jacobsson of the Karolinska Hospital, Stockholm, and a team of Swedish surgeons. Observation of 57 patients in one hospital and 65 in another showed greater success with stomach and rectal cancer than with bladder carcinoma.

Radiotherapy used alone on 241 uterine cancer patients in Sao Paulo, Brazil, was reported by Dr. A. F. Martins and his collaborators. Very few complications were seen, and the complications soon disappeared in most cases.

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MEDICINE

German Measles Virus Found by U.S. Scientist

► The virus that causes German measles (rubella), an illness known to lead to severe damage during pregnancy, has been discovered.

The new virus, which appears to be unrelated to any yet identified, was isolated from more than four out of five patients with rubella by Drs. John L. Sever and Gilbert M. Schiff of the U.S. Public Health Service's National Institute of Neurological Diseases and Blindness (NINDB) Perinatal Collaborative Project. When cultivated and administered to volunteers, the virus was found to cause rubella. These findings were reported in Bethesda, Md., at a meeting of the Project Directors of medical centers participating in the Collaborative Project.

Dr. Richard L. Masland, Director, NINDB said: "The isolation and identification of the virus responsible for German measles is an essential step toward the development of an immunization procedure.

It has recently been learned that the danger of German measles is far greater than previously recognized since the occurrence of this infection during pregnancy may lead to serious injury of the unborn child." According to recent reports, birth defects occur in some 50% of liveborn babies whose mothers had rubella during the first month of pregnancy and in about 20% of infants if infection occurred during the first three months.

The rubella virus was isolated by Drs. Sever and Schiff from five groups of infected military recruits and children in different geographical areas. In over 90% of these patients, neutralizing antibodies—substances in blood formed in response to the virus—could be identified. Further "double-blind" tests proved that the antibodies could be correctly demonstrated in the vast majority of patients who had had rubella.

The investigators found that the virus, which grows in cultures of monkey tissue, could be detected by its active blocking of Coxsackie A-9 virus, which indicates the presence of the rubella virus. Studies of its characteristics showed that it was resistant to a number of different antibiotics and could be frozen and stored for over a year.

Preliminary studies were conducted with monkeys obtained at the Laboratory of Perinatal Physiology, NINDB, in Puerto Rico. These animals, reared in an isolated environment, were presumed to be non-immune to the virus. In these animals a mild febrile illness was produced but no rash was observed. Typical antibodies were found in their blood. The virus was subsequently administered to human volunteers who developed rubella after 12 days. It was then isolated from the throats of these patients, proving conclusively that the rubella virus has been identified.

The isolation of a "Rash Agent" from adults suffering with recruit rubella, scarlet fever, and other respiratory diseases, and techniques for its identification, have previously been reported by Drs. P. D. Parkman and E. L. Buescher of the Walter Reed Army Institute of Research.

Because of a close community of interest, the special facilities of the Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases were used for the NINDB studies. These tests now permit only a rough determination of the quantities of both virus and antibody. However, they provide the basis for investigating methods for more direct testing.

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MEDICAL TECHNOLOGY

Mechanical Heart for Ailing Human Heart

► A NEW "mechanical heart" which may be substituted up to 24 hours for a seriously injured human heart is being developed by the Swedish Aga Company in collaboration with Swedish surgeons at the Karolinska Hospital in Stockholm. The technique is based on methods resulting from teamwork between Swedish and American surgeons.

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