Medical Sciences Notes

CANCER CHEMOTHERAPY

Cure for Rare Cancer

The word "cure" for cancer is at last being used both in the United States and in England, following reports on a rare type of post-pregnancy malignancy called choriocarcinoma.

Dr. Roy Hertz of George Washington Hospital and the National Cancer Institute has followed up more than 100 women in a 10-year study and treatment with the drug methotrexate, and has reported a 75% cure rate. Doctors earlier have used such euphemisms as "effective" or "induced regression" in discussing cancer treatment. But in this case, Dr. Hertz makes no bones about it. After 10 years of following patients, this is a cure, he says.

"In the early phases of choriocarcinoma, called a hydatidiform mole," Dr. Hertz said, "we treated 58 women, 56 of whom did not have to have the uterus removed," as do most other victims.

In London last week, Sir Alexander Haddow, director of the Chester Beatty Research Institute, and for five years president of the International Cancer Union, reported 80 percent cures of choriocarcinoma along with 16 percent cures of Burkitt's tumor, a lymphoma common among African children.

Dr. Hertz said that Dr. Haddow also had used methotrexate, which is an antimetabolite used primarily for the blood cancer disease, leukemia.

An antimetabolite interferes with nucleic acid synthesis, thus disrupting the process of cancer cell formation. It also is used with other drugs in the treatment of lymphoma.

Methotrexate has been successfully used in lymphosarcoma, in certain inoperable tumors of the head, neck and pelvis, and in certain fungus-like infections. It was developed under the name Amethopterin as long ago as 1949 by the Lederle Laboratories, a division of the American Cyanamid Co.

Initial treatments should be given in hospitals, but the method of dosage includes oral, as well as intramuscular, intravenous, intratumor and intra-arterial routes.

DENTISTRY

Dentures for Preschool Children

Children as young as three or four years old are being fitted with false teeth in parts of Britain. In fact, several sets of dentures may be required to allow for growth of the jaws before eruption of the permanent teeth.

Reasons for the dentures are psychological as well as physical. The child will be able to chew solid food, avoid speech disorders and the embarrassment of toothlessness.

The rare cases of children losing all their baby teeth in areas such as Appalachia in the United States pose no great problem for American dentists; they generally are not even aware of the problem in many instances.

A spokesman in the British Embassy in Washington pointed out that lack of water fluoridation in Glasgow, Scotland, is believed to be a cause of serious decay among children in that city. When dentures are made, financial help is available from the National Health Service in Britain.

HALLUCINOGEN

Cheap LSD Substitute

Alert health officials in and out of government are growing increasingly concerned over DMT, dimethyl-tryptamine, a cheap hallucinogen otherwise very much like LSD.

Coming in liquid or powder form, it can be inhaled, ingested or injected. Some thrill seekers have reportedly smoked it with marijuana.

Unlike LSD which is more and more difficult to come by, DMT is easy to make and is springing up in small quantities, here and there, like bathtub gin.

There is a misconception that DMT is a less dangerous drug than its more potent cousin. There are no available statistics on the number of persons who have been pushed over the edge to psychosis while under the influence of DMT, but there is ample evidence that its ability to push is pretty strong, according to Dr. Donald Louria of New York's Bellevue Hospital. DMT is no safer than LSD, he said.

Last May, DMT was brought under the 1965 Drug Abuse amendments and can be used legally only by scientific investigators approved by the Food and Drug Administration. There are only a handful of scientists currently working with this hallucinogen, an FDA spokesman said, and no evidence that it has any significant medical value has been reported.

CATHETERS

Tubing Can Slip Into Vein

Polyethylene catheters can become detached and slip into a vein, causing severe injury or even death, a physician warns in the December issue of GP magazine.

Physicians should make a loose loop knot in the exposed portion of the catheter to prevent slipping, Dr. Carl E. Northcutt of Stuttgart, Ark., says in the scientific publication of the American Academy of General Practice

Manufacturers could help lessen the threat of lost fragments of lengths of tubing if they would develop tubing more easily detected by X-ray. Doctors now can inject a radiopaque dye into the vein to facilitate finding lost tubing, but this poses a dilemma because the dye might float the tubing farther along the vein and into the heart.

SMOKING AND HEALTH

Russian Rabbits Smoke

Pity the poor Russian rabbit who does not like to smoke, for he must learn. And apparently he does, in his way, and likes it.

Rabbits who have been participating in experiments for five years, and now smoke up to nine cigarettes a day, grow restless if their cigarettes are late, Russian news agency Tass reported. Scientists use special masks with cigarettes attached to get the bunnies into the smoking habit. No results of their studies were announced.

Actually, no animal is known to smoke in the same way man does, a spokesman for the National Cancer Institute says. In tests with dogs, mice and even monkeys, a tube is usually inserted surgically to take smoke directly to the animal's lungs, as they all seem quite unwilling to inhale.

31 December 1966 / Vol. 90 / Science News

567