

MEDICINE

Periwinkle Drug for Cancer

► **CANCER** now can be attacked by means of a drug extracted from the blue-flowered periwinkle, a trailing evergreen herb, Eli Lilly and Company has reported.

The pharmaceutical company cautioned, however, that the effectiveness of the drug is limited now to treatment of only two types of cancer, generalized Hodgkin's disease and a rare type of malignancy known as choriocarcinoma.

An alkaloid extracted from the periwinkle, known as the sulfate salt of Vinblastine (VLB), the new drug is being introduced under the trademark Velban. It is available only on prescription and is administered by the physician by intravenous injection.

VLB has been used at the National Cancer Institute, Bethesda, Md., in treating choriocarcinoma, a tumor of a membrane found in the placenta, ovaries and testes. This type of cancer represents only a very small percentage of all cancer cases, with only 700 reported in the United States.

Remission of the disease in patients treated at the National Cancer Institute occurred for periods as long as one year. And in two out of 14 cases where the VLB was used, the remission still continues.

However, it is against Hodgkin's disease that the drug has proved most effective. Several patients have lost, at least for the present, all evidence of Hodgkin's disease. In more than half the patients treated, the drug was successful in reducing at least by 75% the tumor masses.

In many of these cases, the patients had failed to respond to other methods of treatment.

Although the clinical trials have proved most encouraging, there is no evidence that in any instance Velban has "cured" Hodgkin's disease or any other form of human cancer. No cancer is said to be possibly cured until there has been complete remission for at least five years.

VLB has thus far been studied in 300 patients having a variety of malignant diseases. Evaluation of results in cancers other than Hodgkin's disease and choriocarcinoma have not been completed.

The activity of periwinkle extracts against cancers in animals was discovered independently by scientists of the Collip Research Laboratories at the University of Western Ontario, London, Canada, and of the Lilly Research Laboratories.

• Science News Letter, 79:181 March 25, 1961

MEDICINE

Diet Controls Diabetes

► **AT LEAST 40%** of diabetics are overweight and in them the disease can be controlled by diet alone.

"Too many physicians are treating diabetics by having them swallow only a

couple of tablets daily without proper diabetic management," Dr. Leonard H. Hamff, Emory University, Atlanta, stated.

The new drugs, tolbutamide and chlorpropamide, Dr. Hamff said, have stimulated

research in diabetes, but study should be continued to discover their mechanism.

Juveniles should not be given these new drugs, known as sulfonylureas, because diabetic acidosis may develop, Dr. Hamff said.

"The sulfonylurea drugs are not a substitute for insulin," he explained.

Dr. Sidney A. Tyroler, Georgetown University, Washington, said insulin is still required in a great many diabetics despite the inroads made by oral drugs used to treat hypoglycemia, a condition in which the concentration of glucose in the blood is below normal.

Insulin reactions, he said, are commonly caused by three things: too little food intake for the accompanying insulin, too much exercise or too much insulin.

"The Sunday athlete may have a severe reaction after mowing his lawn," Dr. Tyroler said. Or the patient may skip a meal because he is too busy, has no appetite or is unable to eat because of vomiting. Hypoglycemia, due to an overdose of insulin, usually occurs from one to 36 hours after administration, depending on the type of insulin used.

However, few deaths have ever resulted from taking too much insulin. Most of those resulting from insulin overdosage have occurred when a mistaken diagnosis of acidosis was made in a patient with hypoglycemia, or who was in a post-hypoglycemic state and received further insulin, Dr. Tyroler said.

The insulin compensating mechanism of the body is so effective that even massive dosages, such as taken for suicidal attempts, fail to kill.

The diabetes seminar was held at Georgetown University Medical Center, Washington, D. C., for physicians from a four-state area and the District of Columbia.

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Food for Queen Bees Saves Leukemic Mice

► **ROYAL JELLY**, the food that transforms an ordinary bee into a queen, can be a lifesaver for mice with leukemia. But if the dose is too large or too small, it is deadly stuff for the mice.

Drs. B. Grad, V. A. Kral and J. Berenson of McGill University, Montreal, Canada, report that one-fiftieth of a teaspoonful of royal jelly prolongs the lives of leukemic mice if it is injected once a week. If given daily, however, it shortens their life span.

One five-thousandth of a teaspoonful of the jelly also protected young mice from freezing if injected before and during exposure. Higher and lower doses, again, had no effect in this case.

Relatively large doses of royal jelly are definitely poison for mice, the researchers report in the *Canadian Journal of Biochemistry and Physiology*, 39:461, 1961. A fifth of a teaspoonful of this substance, sometimes used as an ingredient in cosmetics, kills more than half the mice within two days.

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SYNTHETIC CAR—Developed by General Motors Research Laboratories to study interaction of driver and vehicle controls, this analogue driving simulator gives the illusion of turns in the road, and the driver steers to follow.