

MEDICINE

Cancer Growth Prevented In Mice By Yeast And Vitamins

Vitamins Alone Had Little Effect, But Riboflavin And Pantothenic Acid With Yeast Succeeded With 62%

HOPE that the vitamin trail may lead to a means of preventing cancer appears in a report of cancer prevention in mice by vitamins and yeast. The experiments were performed by Dr. R. Lewisohn, Dr. C. Leuchtenberger, Dr. R. Leuchtenberger, Dr. D. Laszlo, and Dr. K. Bloch, of Mount Sinai Hospital in New York City. (*Science*, July 18.)

The vitamins involved are two of the vitamin B complex, pantothenic acid and riboflavin. They and the yeast were injected into the veins of mice on which a piece of breast cancer from another animal was grafted. Grafts of this particular cancer usually take and continue to grow in 95% to 100% of mice and it is a very difficult cancer to cure.

When yeast was given to the animals, the cancer grafts took in only 20%, or one-fifth, of the animals, instead of in nearly all of them. Adding pantothenic acid to the yeast prevented growth of the transplanted or grafted cancers in almost half of the mice, 47%. Adding riboflavin

to the yeast extract prevented growth of the transplanted cancers in nearly two-thirds, or 62%, of the mice. The vitamins alone had very little cancer-preventing effect. Thiamin, or vitamin B₁, alone had very little cancer-preventing effect and did not help the yeast extract to prevent cancer.

Breast cancers that develop spontaneously in mice disappeared completely in 30% of mice after injections of a watery yeast extract, Dr. Lewisohn and associates had previously discovered.

This report, following on reports within the last few years from other scientists who found riboflavin or yeast would prevent experimentally induced liver cancers in rats, suggests that at last scientists may be on the right trail in their search for a means of preventing cancer. Many more experiments will be needed, however, and anyone who hopes for too much at this stage may be doomed to disappointment.

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infantile paralysis authorities point out that infantile paralysis is so unpredictable it is almost impossible to tell whether a particular treatment has helped the patient or whether he would have recovered without it. The only way to be sure about the value of a new treatment is to test it by giving it to every other patient during an outbreak. High hopes for serum treatment held in this country were dispelled when it was put through this test. No more recovered with the serum than without it and its use has not been generally advised since these tests in 1931.

No evidence that sulfapyridine has any effect on infantile paralysis has yet appeared in reports of laboratory experiments or in any published report in the United States of its use on human patients.

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Sugar Disorder Found In "Smoke" Drinkers

DISCOVERY of a sugar disorder that afflicts "smoke" drinkers is announced by Dr. Thomas McP. Brown and Dr. M. A. Harvey, of the Johns Hopkins Medical School and Hospital. (*Journal, American Medical Association*, July 5.)

Technically, the condition is termed hypoglycemia, meaning a deficiency of sugar in the blood. It was discovered in alcoholics brought unconscious to the Johns Hopkins Hospital. The patients had all been chronically addicted to alcohol, drinking it in the form of denatured alcohol known locally as "smoke," because of the milky or "smoky" appearance of the drink which is made by adding such substances as varnish and paint removers, anti-freeze and "canned heat" to water.

In only one of the six cases was there any sign of damage to the liver and none of the patients complained of difficulty in seeing, although tests of the denatured alcohols used in the "smoke" always showed the presence of methyl (wood) alcohol.

In some of the patients, arms and legs were held rigidly extended, so that it was almost impossible for an attendant to bend them.

After discovering the blood sugar deficiency in two of the patients, who recovered without specific treatment, the other four were given sugar solution injections into the veins. This treatment brought a rapid and dramatic recovery.

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Treating Infantile Paralysis With Sulfapyridine Reported

British Physicians Tell of Good Results, But Point Out Need for Caution; Americans Doubtful

SULFAPYRIDINE, widely used and powerful pneumonia remedy, has been used with good results in treatment of infantile paralysis, Dr. Sinclair Miller and Dr. Stanley Wray, of Harrogate, England, report. (*Lancet*, June 14.)

American authorities view the results with some doubt, and the English physicians themselves point out the need for caution in interpreting the results. They gave the drug to 30 patients in an outbreak involving more than 100 patients in Harrogate in 1940.

Among 18 patients given only the usual infantile paralysis treatment, one died, five were severely crippled, six were

left with slight paralysis and the other six had either no paralysis or a very negligible amount.

Among 14 receiving sulfapyridine in addition to the usual treatment, one died, three were left with a moderate degree of paralysis and the rest had little or no paralysis.

Among 16 patients, including many of the apparently more seriously ill, given both sulfapyridine and convalescent serum there were no deaths although one patient was expected to die when first seen, and 11 patients made an excellent recovery.

Hopeful as these results are, American