

MEDICINE

Cure For Cancer May Be Found In Defensive Diet

Tar Cancer in Mice Influenced by Substances in Diet Which Change the Chemistry of Organic Fluids

THE REAL "cure" of cancer is to be achieved by reestablishing the body's defenses against malignant growth, predict Drs. J. Maisin and Y. Pourbaix, of the Cancer Institute of the University of Louvain.

The means of accomplishing this—suitable diet or possibly chemicals obtained from certain animal organs—are indicated by studies just reported in *The American Journal of Cancer* (June).

For the present cancer patients cannot hope to be cured by diet. They must still rely on surgery, X-rays or radium. The work of the Belgian scientists is still in the experimental stage and their results, promising though they seem, have been obtained only with mice suffering from one form of cancer. The studies are not reported as a cure for cancer but as a signpost for scientists, pointing what seems to be a logical and promising way to an ultimate cure of cancer.

"The experimental results here recorded," the scientists state in conclusion of their scientific report, "may be interpreted as indicating that it is possible to influence the evolution of tar cancer in one direction or the other by diet.

"Our results show unquestionably that chemical factors can be found which protect against cancer or lower the resistance to definite carcinogenic (cancer-producing) substances."

The scientists proceed in the cancer problem on the theory that it is a constitutional disease rather than a local ailment. Consequently they think treatment should be aimed at strengthening the body's defenses, rather than at destroying the cancerous growth. Cancer in their opinion is the "peculiar response of injured cells" of an animal—mouse or man—that has been intoxicated by organic poisons. These poisons may be certain chemicals, as in tar cancers, or they may possibly be poisons produced by the "germs" of chronic infection, or they may be still other poisons that get into the body.

Rebuild the body's natural defenses and the body will be able itself to destroy and dispose of the cancer, they reason.

"By our experiments," they report, "we have demonstrated that in changing by diet the chemical composition of the organic fluids of an intoxicated animal it is fairly easy to modify its cancer response.

"It is reasonable to assume that by further studies it will be possible to find organic chemical compounds which, injected or given in the diet, will protect against the poisoning which leads to a typical growth and cancer.

"We believe, also, that in this way it will be possible to make a cancer slowly disappear, by reestablishing the organic defenses which will take care of the growth.

"Such a cure of cancer seems more logical than a specific remedy with power to kill cancer cells and leave untouched normal cells."

The experiments on which these conclusions are based took many years of work and their report covers many pages in the scientific journal. In summary they are:

Mice develop cancer when their skins are painted with tar. (Men also develop

cancer from exposure to tar, as seen in chimney sweeps' cancer and mule spinners' cancer.) When the mice are fed ground up bits of certain organs—liver, pancreas and the lining of the lower digestive tract—the tar cancers develop sooner and grow faster than usual, Drs. Maisin and Pourbaix report. When the mice are fed certain other organs—brain, thymus gland, and bone marrow among others—the tar cancers do not develop as soon as usual. Apparently the latter group of organs contain a substance that checks or stops the growth of the tar cancers.

This is not quite all the story, however. Chemical treatment of the various organs fed to the mice showed that each organ apparently contained one substance that checked the growth of cancer and another that promoted the growth of the cancer. It is through the interaction of these two substances in the various organs or through their proper balance that the healthy body has a system for regulating cell growth, in the opinion of Drs. Maisin and Pourbaix. Cancer is a state of abnormal cell growth.

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BOTANY

Breeding for High and Low Produces Strange Contrast

A STRIKING example of the results which can be obtained by selection in plants is furnished by a corn experiment which has been carried on for over a generation at the University of Illinois. (Turn to Page 4)



BREEDING HIGH AND LOW

The tall stalks with their loftily borne ears were bred from seed taken from the same field of corn that produced the dwarf stalks on the right, with ears that hardly clear the ground when ripe.