

MEDICINE

Cirrhosis of the Liver Produced by Vitamin Lack

Rabbits Deprived of Vitamin Found in Yeast Develop Cirrhosis Like That Affecting Humans

CIRRHOSIS of the liver can be produced by a diet lacking in a vitamin found in yeast, Dr. Arnold R. Rich and Dr. John D. Hamilton, Johns Hopkins Medical School, reported to the Association of American Physicians in Atlantic City.

Rabbits kept on such a diet developed liver cirrhosis of a type resembling Laennec's cirrhosis in man, the Hopkins scientists reported. This is the first time, so far as is known, that anything like this type of cirrhosis has been produced experimentally by an inadequate diet.

Whether or not a similar dietary deficiency causes cirrhosis of the liver in man cannot be deduced from the rabbit studies, Drs. Rich and Hamilton pointed out, because not all animal species react in the same way to a given vitamin deficiency.

Cirrhosis of the liver, however, occurs

frequently in chronic alcoholics many of whom are known to eat an inadequate diet, particularly with respect to the vitamins occurring in yeast. Vitamin treatment of patients with alcoholic cirrhosis has previously been reported to improve not only the vitamin deficiency symptoms but also liver function. These observations seem to strengthen the link between vitamin deficiency and liver cirrhosis shown by the rabbit experiments.

The cirrhosis in the rabbits was not due to lack of vitamins B₁, B₂, B₆ or nicotinic acid, but to some other factor in yeast. It may have been choline, lack of which in the diet favors fatty livers in animals, though occurrence of cirrhosis in such livers has not previously been reported.

These investigations are reported in detail in the *Bulletin of the Johns Hopkins Hospital*, (March).

Science News Letter, May 18, 1940

Interested?

in Science, growing improved vegetables, giant flowers in home or garden

NEW KIT

Vitamin B₁, PLANT MAGIC B₁ tablets

The only convenient form of Vitamin B₁. Drop tablet in water. Water plants. NO fuss, NO bothersome stock solutions, NO measuring. Always accurate. 100 tablets (season's supply) \$1.00 pp

SOILLESS GARDEN Grow fruits, flowers, vegetables, indoors and out. In water, sand, cinders or soil. Tomatoes fifteen feet tall yielding 1,500 lbs. per acre have been grown by this method. New kit, no measuring, no bother, no fuss\$1.50 pp

COLCHISALVE (poison) For advanced experimenters. Not a stimulant or a plant food. Actually originates utterly new giant plants and vegetables, unheard of fruits, doubled and redoubled flowers. Termed "most revolutionary discovery of the age. Made according to Experimental Station formula. We are the first to offer an easy to use kit with generous supply, enough for dozens of experiments for only\$2.00 carriage extra

QUEST Science Summary—the only widely recognized magazine covering SOILLESS GROWTH, VITAMIN B₁, COLCHICINE, etc., plus all Garden and Scientific Hobbies. If you are interested in popular Science or Gardening, this is the magazine for you. Special offer 5 issues plus FREE GIANT YEARBOOK OF GARDEN EXPERIMENTS\$1.00

All offers subject to change. Send your check or cash etc. to

**CAMBRIDGE LABORATORIES
B-1**

Wellesley, Mass.

DENTISTRY

Acids Are Most Dangerous Solvents of Tooth Material

CONTRARY to a widespread belief, candy and sugar do not directly decalcify and thus cause decay of the teeth, but pickles and certain salad dressings may do so, according to Drs. John W. Trask, Edwin E. Ziegler, and Edward C. Maloof of the U. S. Public Health Service. That does not mean that sugars and starches are harmless, however, for they contribute to tooth decay by producing lactic acid in the mouth through fermentation, while various acid solutions act directly as solvents.

Although other factors are also involved in tooth decay, such as digestion, assimilation, infections, heredity, and endocrine influences, these experiments suggest that certain commonly used acid foods may play an important role, and they emphasize the necessity of proper oral hygiene in order to reduce the exposure of the enamel to substances of high solvent action.

The purpose of the experiments con-

● RADIO

Prof. W. L. Warner, anthropologist and sociologist of the University of Chicago will describe living in "Yankee City—Deep South" as guest scientist on "Adventures in Science" with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, Thursday, May 23, 4:15 p.m., EDST, 3:15 EST, 2:15 CST, 1:15 MST, 12:15 PST.

Listen in on your local station. Listen in each Thursday.

ducted by these investigators was to determine the relative solvent action, on the teeth, of solutions of various substances. They did this in a practical manner by subjecting small pieces of noncarious teeth to different solutions, which were allowed to flow slowly about the pieces of tooth, and they believe that theirs is the first attempt to evaluate the relative solvent power of various substances quantitatively.

The substances used included acids, alkalis, salts, waters, and carbohydrates. The acids—citric, phosphoric, lactic, acetic, benzoic, tartaric, oxalic, and carbonic, in the order named—were found to have the highest solvent action, with citric acid dissolving 78.8 per cent. of the tooth in 5 days. The alkalis showed no significant solvent action on the tooth material, nor did tap water or distilled water, although the latter dissolved more of the tooth substance than did plain tap water. The sugars preserved with thymol (1:1000) showed practically no solvent action, while those without the thymol preservative produced some fungus and bacterial growth, with resulting increase in solvent power. Common salt solution without thymol showed greater solvent action than most sugars with or without thymol, but with thymol its solvent ability was greatly reduced.

Science News Letter, May 18, 1940

Don't Delay

getting that new book you want to read. SCIENCE NEWS LETTER will gladly obtain for you any American book or magazine in print. Send check or money order covering regular retail price (\$5 if price is unknown, change to be returned) and we will pay postage in the United States. When publications are free, send 10c for handling. Address:

Book Department

SCIENCE NEWS LETTER

2101 Constitution Ave. Washington, D. C.