

MEDICINE

Cirrhosis in Alcoholics

➤ ONLY ONE in 12 chronic alcoholics get cirrhosis of the liver despite the fact that the disease is seven times as common in alcoholics as in non-alcoholics, the American Gastroenterological Association in Chicago was told.

Dr. Gerald Klatskin of the Yale University School of Medicine challenged the widely accepted belief that alcoholic cirrhosis is a nutritional disorder caused by inadequate food consumption.

Although nutritional factors do play a role in causing cirrhosis, Dr. Klatskin said that this "does not imply that the effects of alcohol on the liver are necessarily due solely to the reduction in food consumption that often accompanies excessive drinking."

Contradicting the food theory are the following facts:

1. Alcoholics occasionally develop cirrhosis despite an apparently adequate diet.
2. The disease is rare in non-alcoholics with chronic wasting diseases accompanied by severe malnutrition.
3. Experimental nutritional cirrhosis does not show the striking changes seen in alcoholic-caused cirrhosis.

4. Cirrhosis patients on poor diets frequently show liver improvement through the simple withdrawal of alcohol.

A direct effect on the liver by alcohol not related to food consumption was reported as the result of experiments on rats showing that a single large dose of alcohol promptly raises the fat content of the liver. However, Dr. Klatskin pointed out, long-term alcohol feeding of rats results in a type of fatty infiltration that can be prevented and abolished by the vitamin choline.

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Indigestion Remedies

➤ MANY COMMERCIAL remedies for indigestion should be taken from the market, Dr. Kurt J. Isselbacher of Massachusetts General Hospital told the American Gastroenterological Association in Chicago.

"Free" bile salts in commercial preparations are harmful to the intestinal lining, Dr. Isselbacher warned, and physicians as well as pharmacists should be aware of their danger. He reported on fat absorption from the intestines and the enzymatic mechanism of the process that he has found.

"The conversion of fatty acids to neutral fats is obligatory for their absorption," the Boston physician said. "The enzymatic activity is greatest in the upper part of the small intestine, which is the area of major fat absorption."

Dr. Isselbacher said that in addition to acting as detergents to render fat soluble, the bile salts normally secreted by the liver, unlike those in commercial remedies, have an effect upon the intestinal mucosa or lining. They actually stimulate the process involved in conversion of fatty acids to neutral fats and this further aids fat absorption.

Dr. C. Adrian M. Hogben of the George Washington University, Washington, D. C.,

said "scientists are now convinced that 'active transport' is the basic mechanism responsible for fluid movement in the small intestine."

He reported new concepts on the mechanism of absorption of the six and a half quarts of fluid that pour out into the digestive tract from food and drink and the various digestive glands each day.

A controversy, mainly between British and American physiologists, revolves about whether ions, the dissolved parts of salt molecules, precede or follow the water moving across the intestinal membrane. Dr. Hogben and Dr. Charles Tidball, of GWU, say the ions move first.

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"Vast Expansion" Urged For Medical Research

➤ THE TWO LEADING causes of death were attacked at the President's Conference on Heart Disease and Cancer.

Twenty-two physicians reported in Washington to President Kennedy that not only is a "vast expansion of medical research" needed, but that individuals and communities should be made aware of achievements already attained by scientists in their war to stamp out these killers.

Pointing out the tremendous loss to the nation through illness and death from heart disease and cancer, the physicians recommended a "much higher level of Federal appropriations in support of medical research" and a commensurate increase in

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Heart Chamber Fails

➤ CONGESTIVE heart failure may be linked to failure of the atrium, one of the upper chambers of the heart, Dr. Jere H. Mitchell, of the National Heart Institute, National Institutes of Health, Bethesda, Md., said in a prize-winning report that won him \$1,000 and a silver medal.

The 32-year-old scientist was the winner of the first American College of Cardiology's Young Investigators' Award. The report was the result of an investigation in collaboration with Dr. Stanley J. Sarnoff, chief of the NHI laboratory of cardiovascular physiology, and Joseph P. Gilmore. Dogs were used in the experiment.

In an interview with SCIENCE SERVICE, Dr. Mitchell said the transport function of the atrium (the subject of his investigation) is much like a booster pump in the circulation.

"It augments the transfer of fluid from the blood pool, or venous bed, into the primary pump or power-generating element of the system, which is the ventricle."

The symptoms of congestive heart failure,

voluntary contributions to fight them.

President Kennedy sent a message to Congress based on the report.

Chairman of the conference was Boisfeuillet Jones, special assistant to Secretary Abraham Ribicoff of the Department of Health, Education and Welfare.

Sen. Hubert H. Humphrey (D.-Minn.) has urged a ten-point plan for "total war" against cancer and heart disease. His key proposal is for Federal support for regional centers of biomedical research in the nation's leading universities.

He also is proposing more money to support exchanges of scientists with other countries, to finance pilot research centers abroad, to support international professional societies and other measures.

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Basic Hospital Services Cost \$15 to \$20 a Day

➤ CHARGES for basic hospital services average from \$15 to \$20 a day in the United States, a new American Hospital Association survey covering 1960 has reported.

This covers room, board, routine nursing care and minor supplies, but rates vary widely according to type of accommodation, hospital size, ownership and geographical area.

Figures were obtained from 4,692 short-term non-Federal hospitals, 94% of 5,455 such hospitals listed by AHA.

Although a general increase in average charges was noted, the report said this increase probably reflects "not only rising hospital costs but also a trend toward a more realistic balance between charges for routine daily services and unit charges for special services."

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he explained, are closely related to a high pressure in the veins and capillaries, and the high venous pressure is generally attributed to an abnormal function of the ventricle. However, Dr. Mitchell said, a failure of atrial function may also be a factor.

The atrium normally provides filling of the ventricle with little elevation in the venous blood system. When the atrium fails, however, a higher pressure in the blood pool, or venous bed, is needed to force the blood into the ventricles.

The amount of filling of the ventricle is one of the determinants of the work of the heart.

Therefore, when the atrium fails, the venous pressure must go up in order to fill the ventricle so the ventricle will do its work.

Dr. Mitchell concluded, therefore, that abnormal atrial function may play a role in the beginning or cause of the elevated pressure observed in congestive heart failure.

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