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COMMUNITY HOSPITAL AS ALCOHOLIC HUB

Alcoholics should have free access to physicians and hospitals along with other sick people throughout the community, according to William L. Keaton, Chief Alcoholism Therapist, Hurley Hospital, Flint, Michigan.

Addressing the annual meeting of the National Council on Alcoholism, he declared that the community hospital must play a vital role in marshalling local resources to treat alcoholics and to combat and control alcoholism.

At Hurley Hospital, patients with a diagnosis of alcoholism have been admitted routinely since 1936. "Administration of small doses of alcohol to taper off alcoholics or wean them away from alcohol are contraindicated without reservations," he stressed.

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NIACIN, NIACINAMIDE IMPROVE SCHIZOPHRENIC ALCOHOLICS

Thirty schizophrenic alcoholics were included in a 100-patient clinical series testing a biochemical approach to the treatment of schizophrenia at the North Nassau Mental Health Center. Dr. David Raymond Hawkins, the Center's Director, reports that 25 of the 30 alcoholics are currently sober and that, of those 25, 24 have either recovered from their schizophrenia or their symptoms have abated.

The series was undertaken to evaluate further the hypothesis that faulty transmethylation is the most plausible biochemical explanation. The treatment method, after diagnosis was confirmed by HOD testing, consisted first of patient education about the biochemical nature of schizophrenia. For this purpose, each patient was expected to read Hoffer's and Osmond's "How To Live With Schizophrenia." Each was also encouraged to attend Schizophrenia Anonymous or Recovery group meetings.

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GROUP LIVING HELPS HOMELESS ALCOHOLIC

Group living, in the nature of a "family that learns to have a real concern and regard for its various members," has proven to be highly effective in the treatment of indigent, homeless alcoholics in Worcester, Mass.

In the last 10 years, 15 percent of 170 homeless, jobless men who entered the Belmont Rehabilitation Program have maintained sobriety, employment and a return to the family environment; 22 have been classified as improved, indicating marked gains in controlling drinking.

Dr. George E. Dearing, Psychiatric Director of the program, emphasized in a presentation to the National Council on Alcoholism, that these figures must be viewed in light of the fact that the men who come to Belmont are not motivated to help themselves.

"Seldom does a man appear here with a simple, honest wish to get and stay sober. He may genuinely want to get and stay sober long enough to complete a probation period, recoup his physical health or get through the winter."

The challenge for the rehabilitation program is to accept the man as he is when he arrives and offer him something sufficiently attractive to allow him to further develop and repair his personality, Dr. Dearing declared.

The staff considers that the most valuable therapeutic tool is the group interaction provided by the "live-in" situation at the center. Group discussions and "gripe sessions" are fortified by individual counselling and attendance at

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REPAIR OF LIVER CELL DAMAGE TIED TO TOTAL ABSTINENCE

Prevention of a return to alcoholism is the major problem which faces the physician who cares for the alcoholic with cirrhosis, according to Dr. Carroll M. Leevy of the Division of Hepatic Metabolism and Nutrition, New Jersey College of Medicine.

Resumption of alcoholism is associated with further liver cell destruction and leads to irreversible cirrhosis with post necrotic features and eventual hepatoma. At the basis of orientation and practice, he stressed, must be the acceptance of the alcoholic as a patient in need of medical care.

Prophylaxis and treatment of liver disease requires both an adequate dietary intake and abstinence from ethanol. Appropriate nutrients required to repair liver cell damage are essential because the usual American diet is not adequate to prevent liver injury, Dr. Leevy said, and ethanol significantly increases the need for nutrients required to maintain adequate alcohol oxidative capacity.

He first analyzed biopsies in 3,000 randomly selected alcoholic patients hospitalized for withdrawal symptoms or because of intercurrent illness; 31 per cent showed normal liver; 40 per cent fatty liver or liver cell damage without fibrosis and 29 per cent varying degrees of fibrosis or cirrhosis. There was no specific correlation of histopathology with the degree of alcoholism, dietary patterns or cause for hospitalization. It was also not possible to correlate liver histopathology with laboratory tests commonly used to evaluate liver function. The routine BSP test frequently failed to detect overt liver injury and it was impossible to use it to quantify the degree of liver damage because of its variable extrahepatic removal. In contrast, clearance of indocyanine green provided a sensitive and reliable index to histopathologic alterations.

Insight into the cause for variations in histopathology was provided by giving ethanol to a group of seven volun-

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Editorial:

HOW TO LIVE WITH NICOTINIC ACID

The recent tremendous interest in the use of large doses of nicotinic acid (4 grams/day) in the treatment of alcoholism calls attention to the stimulating and dedicated work of Humphry Osmond and Abram Hoffer in the biochemistry of schizophrenia and related alcoholism. The word has spread in medical and non-medical circles about nicotinic acid and niacinamide. Many alcoholics without any medical supervision are taking these substances in massive amounts or are asking their physicians about them.

A recent conference on Schizophrenia, at the Brunswick Hospital in Amityville, L.I., (see lead story on page 1) has presented this approach in medical circles with favorable results of treatment.

The crux of the Hoffer approach is the theory that schizophrenia is a metabolic abnormality, in which the degradation of adrenalin normally follows the path to adrenochrome and then dihydroxyindole. In schizophrenia, because of genetic causes, the pathway is changed, and the adrenochrome is degraded to adrenolutin, a toxic substance which produces schizophrenia. The chemical derangement is a pathological transmethylation: methyl groups being attached to phenolic-hydroxyl groups instead of the amino group. A substance such as nicotinic acid, which is a methyl acceptor, can use up the available methyl groups and prevent the formation of the toxic substance.

A dispassionate article by Seymour S. Kety, chief, Laboratory of Clinical Science, National Institute of Mental Health (NEJM, 276, 325: Feb. 9, 1967) summarizes the research thus far. Warning against simplistic models which will draw attention away from more fundamental research, Dr. Kety, nevertheless, "finds that the transmethylation hypothesis is parsimonious and compatible with a great deal of information, much of which was generated by the exploration of the hypothesis."

He warns, however, that the hypothesis is far from being validated and quotes those who have been unable to confirm, and those who have brought evidence to bear that suggest an artificiality of drug therapy or (less damagingly) diet may be responsible for the findings.

Using a figure that 30 per cent of alcoholics are schizophrenic, and using the much questioned "mauve factor"

as a guide in some instances, alcoholics in large groups are taking nicotinic acid or niacinamide, and many have reported beneficial results.

This treatment is being used routinely at the highly esteemed Guest House Sanatorium for alcoholic priests by Mr. Austin Ripley, with what he has called "phenomenal results."

Dr. Hoffer has made his treatment into something of a crusade. He has started an American Schizophrenia Foundation, 230 Nicols Arcade, Ann Arbor, Michigan 48108; and in the book "How to Live With Schizophrenia," he has taken his case to the public. Alcoholics will recognize the positive help that comes from giving a disease name to a patient's symptoms, particularly when help is at the same time offered. Also some of them may sympathize with the wholesale attack on Freudian psychology which the book offers. Physicians and some other well-educated people have, however, seen and experienced the fruitfulness of the Freudian approach, and although it has been somewhat resistant to testing, has opened wide vistas of prevention and amelioration of psychological suffering.

The ultimate test of a scientific theory is its staying power. One already no-

ADMISSION CRITERIA

The Alcoholism Committee of the New York State Medical Society has drafted a list of five criteria for admission of a patient with alcoholism to a general medical in-patient facility. In introducing this proposal several highly logical reasons for such care in a medical situation were outlined. It was said that the acutely toxic alcoholic should no more be in a psychiatric ward than should the psychiatrically disturbed patient with encephalitis or central nervous system tuberculosis.

tices that alcoholics and alcoholic schizophrenics originally given nicotinamide alone or with ascorbic acid, have had other drugs added to the regimen, including phenothiazine tranquilizers, already proven to have ameliorating influences on schizophrenic anxiety. This is not necessarily an indictment of the Hoffer treatment, but it causes one to wonder.

We hope that the merited independent investigation of nicotinic acid and nicotinamide continues. We welcome the debate. We hope that the investigation continues to turn out favorably; but knowing the fate of the other modes of therapy as enthusiastically promulgated as this in the past, we must allow the test of time to prevail.

COMMUNITY HOSPITAL

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Key figure in the treatment and rehabilitation under this plan is the family physician. When a patient does not have his own doctor, he is admitted to the hospital under the supervision of a staff physician through the emergency department.

The Group Therapy Unit, which is under the Department of Medicine, is an integral part of the program. Patients attend and participate three times weekly in a series of lecture-demonstration discussion sessions on pertinent aspects of alcohol and related problems.

Patients join the groups on the second or third day of hospitalization, even though they may not be able to absorb very much.

Significantly, since 1961, alcoholics have not been restricted to the psychiatric ward. They are housed on all medical or surgical floors; the location of the patient depends solely on his condition.

The community hospital can focus on many aspects of the alcoholism problem, Mr. Keaton believes. It can fight the social stigma, prejudice, negative attitudes and misconceptions about alcoholism through stimulation of insight, understanding and community-wide acceptance of alcoholism as a chronic and progressive disease.

"Misleading notions involving the etiological significance of emotional inadequacy, moral insufficiency, social ineptitude, weakness of will or general immaturity should at least be relegated to their proper place," he observed, adding: "Alcoholism must be accepted without reservations as a disease."

In his view the alcoholic must be regarded first as a human being and second as a sick individual. A climate favorable to this functional approach, he feels, is dependent on widespread acceptance of alcoholism as a disease.

RESEARCH AND REVIEW

Liver Study

Evidence against the hypothesis that alcohol is cirrhotogenic by virtue of direct hepatotoxic action has been adduced by Drs. Akira Takara, Eduardo A. Porta, and W. Stanley Hartcroft of the Research Institute of the Hospital for Sick Children, Toronto.

By implication, they maintain, this conclusion affords hope for achieving some recovery of liver function even in those alcoholics who cannot give up spirits, if only they can be induced to consume simultaneously high protein diets containing abundant vitamins and essential food factors.

If alcohol acted on the liver as a direct hepatotoxin, they pointed out, its continued consumption during treatment with completely adequate diets would be expected to retard the rate of improvement in hepatic structure and function.

In the experiments reported, rats with cirrhosis produced by choline deficient diets were treated with super diets overabundant in protein despite addition of alcohol that made up 36 per cent of the caloric intake.

Regression of cirrhosis ensued comparable to that of similar rats fed diets without alcohol. Asked to comment on this study, Dr. Charles Lieber, whose experimental conclusions are challenged by it, has observed that this shows only that alcohol does not impede healing of cirrhosis produced by choline deficiency.

(*American Journal Clinical Nutrition*, Volume 20, Number 3, pages 213-223.)

Oxidation Research

The enzyme responsible for the utilization of alcohol in the liver of the horse, studied outside the living body, is about 10 times more active than the human enzyme. Because of the rapidity with which the horse might oxidize al-

cohol, it was therefore theorized, it might prove difficult to intoxicate a horse.

Drs. David Lester and William Z. Keokosky, Center of Alcohol Studies, Rutgers, however, have discovered that determination of the rate at which alcohol disappears in the living horse indicates the contrary; with an equivalent amount of alcohol the horse disposes of alcohol at about one-third the rate in man.

Factors, therefore, other than the activity of the pure enzyme outside the body are operative, the doctors stated, and the activity that a particular enzymic catalyst exhibits in vitro may have little relevance to what occurs in a highly organized living system.

Since variants of the normal enzyme found in some human livers have been reported, it had been conjectured that individuals with this anomaly may also have an increased capacity for oxidation of alcohol—and that such an anomaly might possibly be related to a predisposition to alcohol addiction.

Skid Row Syndrome

This article describes a particular segment of the skid row population—chronic drunkenness offenders lacking in family ties, homeless, suffering from malnutrition.

Involved in the study were 227 alcoholics in the Toronto Jail. Complete physical examinations including liver function tests, routine hematology, urinalysis, and chest radiographs were carried out. Previous hospital records were obtained for each man. The data were analyzed by IBM computer and reported in terms of body systems.

Items that occurred in sufficient frequency were separated out and listed to compile a "skid row syndrome." The men averaged forty-five years of age, had been drinking heavily for twenty

years, and had about four drunk convictions a year. Tuberculosis was found in 8.8 per cent; epilepsy was confirmed in 8 per cent, and cirrhosis of the liver was definite in 3 per cent of the group. In addition, 75 per cent were underweight and 25 per cent had significant body deformities.

However, it was estimated that if necessary therapy was carried out, 90 per cent of the men would be able to perform useful labor.

(Olin, J. S., "Skid Row Syndrome," *Canad. Med. Assoc. Journal*, 95: 205-14, July 1966.)

Depot Fat

Prolonged administration of ethanol does not increase the mobilization of depot fat; and the livers of alcohol-fed animals accumulate more fat than pair-fed controls. The specific activity, however, of individual lipid classes does not differ between the two groups.

There is no increased synthesis of fatty acids in rats fed large amounts of alcohol, and the results further suggest that there is a decrease in the release of lipid from the liver or in the formation of lipoprotein as a result of ingestion of ethanol.

These are the conclusions of Drs. G. Sereny and J. A. Lowden of the Research Institute, Hospital for Sick Children, Toronto. Their study was conducted with rats that were previously pre-labelled with radioactive palmitic acid.

MEETINGS

SEPT. 24-28, 1967: 18th Annual Meeting of the North American Assn. of Alcoholism Programs at the Sheraton-Chicago Hotel, Chicago, Ill.

On May 23-25, the Scientific Committee of the Intl. Council on Alcohol and Alcoholisms convened at the Jellinek Clinic in Amsterdam. Invited from the U.S. were Dr. David J. Pittman, President of North American Assn. of Alcoholism Programs, and Dr. Frank A. Seixas, Internist. The meeting will be reported in our next issue.

LITERATURE

Alcoholism, (Behavioral Research Therapeutic Approaches), Edited by Ruth Fox, M.D., Springer Publishing Co., Inc. 1967

Alcoholism: A Family Illness. Published by Christopher D. Smithers Foundation, 450 Park Ave., N. Y., N.Y. 10022. The impact of alcoholism on family life. *A Company Program On Alcoholism*. Published by Christopher D. Smithers Foundation. Written as an aid to management in formulating a company program for the rehabilitation of alcoholic employees.

GROUP LIVING HELPS

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a weekly AA meeting. Antabuse is required for the first 30 days of treatment if medically warranted; later it is optional.

When first admitted, the alcoholic is accommodated in the "nursery," from which he is promoted at his own progress rate to increasingly comfortable quarters. After 90 days of sobriety and employment in the community, he reaches a single room of his own. Employment contacts are developed by the staff; the State-sponsored Alcoholism Clinic is available for those who wish

to use its services.

The house has by now developed "traditions," Dr. Dearing says, stemming from earlier rules and incoming men learn acceptable conduct from the existing group.

The emphasis on engagement of the individual in the group effort is reflected in the tradition requiring that all who become employed must pay. The rate is flexible, depending on the extent of an individual's responsibilities. A "credit fund" has been established from which a man may borrow until his first pay check is received.

REPAIR OF LIVER CELL DAMAGE TIED TO TOTAL ABSTINENCE

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teers under controlled conditions. They had been hospitalized repeatedly because of alcoholism complications.

In his presentation to the recent meeting of the Federation of American Societies for Experimental Biology, Dr. Leevy pointed out that inadequate removal of fat from the liver, because of defects in oxidation or deficient lipoprotein synthesis is the critical abnormality of therapeutic importance in alcoholic man.

Noting that androgenic-anabolic steroids have been found to accelerate fat removal, he said these substances which increase synthesis of nuclear RNA and facilitate incorporation of RNA amino acids into RNA protein, may cause hyperplasia of the smooth endoplasmic reticulum.

Synthetic anabolic steroids and testosterone are equally effective in preventing the increase in liver triglyceride induced by ethanol in experimental animals, he declared. The administration of large doses of such steroids to patients with moderate fatty liver also caused mobilization of liver fat and repair of liver cell damage despite maintenance of the fat depositing regimen.

The fat removing capacity of androgenic-anabolic steroids has also been found of practical value in the treatment of alcoholic patients with severe hepatic steatosis. Dr. Leevy defined that condition as one in which more than 80 per cent of the histologic section is occupied by fat globules. The time required for restoration, he reported, is reduced from an average of 40 days to 10 days.

The therapeutic efficacy of these agents is based upon their ability to correct defects in fat removal, he said, explaining that during drug-induced anabolism in patients with fatty liver there is significant increase in serum triglyceride and phospholipid although there is little change in serum free fatty acids.

In Dr. Leevy's view, the ability to recognize and correct folic acid deficiency has introduced a new era in the treatment of alcoholic hepatitis. A deficiency of this vitamin encountered in over 50 per cent of patients with this condition occurs because the alcoholic frequently subsists on a diet which contains inadequate or negligible amounts

of folic acid, folate absorption may be diminished when it is ingested along with alcoholic beverages and the diseased liver exhibits decreased hepatic uptake, storage and binding avidity.

The failure to ingest sufficient folic acid to care for needs imposed by tissue destruction, he believes, is the most important of these mechanisms.

Prognosis in alcoholic patients with active cirrhosis is directly related to the ability to synthesize the nucleic acids and protein required for hepatic regeneration. Thus, Dr. Leevy commented, each of a group of alcoholic patients observed over a two-year period with active moderate cirrhosis and absence of in vitro hepatic DNA synthesis which persisted despite supportive therapy, succumbed to their illness. In contrast 80 per cent of those with initial or subsequent increase in DNA synthesis survived.

SCHIZOPHRENIC ALCOHOLICS

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Chemotherapy consisted of four medications: Niacin or niacinamide in a minimum daily dose of 4 grams, progressively increased to a maximum of 12 grams until improvement appeared; 2 grams daily of ascorbic acid; a phenothiazine drug administered for its antischizophrenic properties rather than for its tranquilizing efforts; and 50 mgms daily of pyradoxine. The patient was urged to maintain a high protein, no sugar diet and a regular program of daily physical exercise.

Mild side effects were noted with high B-3 treatment. Flushing after niacin was controllable by Periacin or by switching to niacinamide. In some patients, high dosage of the latter pro-

duced flu-like gastro-intestinal symptoms accompanied by vomiting. Lowered dosage or substitution of niacin avoided the effect.

Dr. Hawkins observed that the therapy was relatively ineffective with the children and with those adults with childhood or adolescent onset. However, a good response among both the alcoholic and non-alcoholic adults was noted. Only the five patients still drinking exhibit the florid symptoms of both alcoholism and schizophrenia.

Twenty-seven of the 30 alcoholic patients now attend Alcoholics Anonymous meetings regularly, Dr. Hawkins commented. Sixteen had been actively drinking on their first contact with the clinic in April, 1966.

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