ADOPTION STUDY BY DANES AND AMERICANS LINKS ALCOHOLISM TO GENETIC FACTORS

Further evidence that genetic factors may play a role in the development of alcohol problems has been reported by a team of American and Danish workers. They found nearly twice as many drinking problems in a group of 55 Danish men who had been separated from their biological parents early in life where one parent had a hospital diagnosis of alcoholism, compared to matched control groups of adoptees. Children of alcoholics had three times those divorced rate of the controls.

Apart from alcohol problems and divorce, the groups did not differ significantly with regard to other forms of psychopathology, such as depression and character disorder.

The team members were Donald W. Goodwin, M.D., and Samuel B. Guze, M.D., (Department of Psychiatry, Washington University School of Medicine, St. Louis); George Winokur, M.D. (Department of Psychiatry, University of Iowa); Fini Schulsinger, M.D., and Leif Hermansen, M.D. (Psikologisk Institut, Department of Psychiatry, Kommunehospitalet, Copenhagen).

**Neuropsychopharmacology Meetings**

Marijuana Explored as Aid in Alcohol Treatment

Marijuana, in combination with disulfiram (Antabuse), may be a useful positive reinforcement in the treatment of alcoholism, according to preliminary results of work reported by Chaim M. Rosenberg, M.D., to the American College of Neuropsychopharmacology at the 11th Annual Meeting held in San Juan, Puerto Rico, December 12-15. Dr. Rosenberg, who is Assistant Professor of Psychiatry at Harvard Medical School and Director of the Alcoholism Division, Department of Psychiatry, Boston City Hospital, said that the majority of alcoholic patients first approached about the study refused to smoke marijuana.

The patients who agreed to cooperate were measured before receiving any drug (baseline); after drinking 3 cc of 43% alcohol/kgm in 10 minutes and after smoking 1 Gr of marijuana containing approximately 1.9% tetrahydrocannabinol. All observations were carried out after 5 marijuana smoking sessions.

One of the patients developed an acute psychoic reaction after smoking one marijuana cigarette and was not studied further.

Few marked differences were found.

(Continued on page 6)
PAN is saddened to report the recent deaths of two distinguished members of AMSA. Dr. Adele E. Stressemann of Brooklyn, a founding member of the New York City Medical Society on Alcoholism and an active supporter of alcoholism programs, died suddenly in February. Dr. Harold E. Libby of Westbrook, Maine, passed away February 16.

To the Editor:
In Vol. 4, No. 3 you honored me by quoting a phrase in which I described the characteristic feature of gamma alcoholism, i.e., “loss of control over drinking.” In Vol. 7, No. 2, the “craving theory” appeared as postulated by myself. This is an honor which I do not deserve. In fact, I have never postulated any “theory” concerning alcoholism. The idea of a “craving” as a characteristic symptom exhibited by alcoholics is a very old one. Maybe Jellinek deserves the merit of giving importance to the “loss of control over drinking.”

The craving for alcohol was extensively discussed in a W.H.O. Expert Committee in September, 1954 in Geneva. The working papers presented to this meeting by eight of its members, including myself, were published in Quart. J. Studies Alcohol 16:34, 1955. In this Committee meeting the late Professor Duchene insisted that the form of alcoholism which is more prevalent in France does not include “loss of control over drinking” as a symptom, and he reported that the most common feature is the “inability to abstain,” a behavioral trait which includes good control over the amount consumed each time. This form has been called delta alcoholism by Jellinek.

I consider that it seems inappropriate to speak of a “craving theory” of alcoholism, for as far as I am aware nobody has postulated it as a general theory. As a matter of fact, since in some countries, as the United States and the Scandinavian countries, gamma alcoholism appears to be the most prevalent form, many authors have thought that “loss of control over drinking”—which some consider as an expression of “craving for alcohol”—was a necessary component of alcoholism.

Prof. Dr. Jorge Mardones
Universidad de Chile
Santiago, Chile

MEETINGS

APRIL 1-5—International Conference on Alcoholism and Drug Dependence, Liverpool, England.


JUNE 10-16—19th International Institute on the Prevention and Treatment of Alcoholism, Belgrade, Yugoslavia. Information from International Council on Alcohol and Addictions, Case Postale 140, Lausanne, Switzerland.

JUNE 25-29—University of Southern California Conference on Alcohol and Drug Abuse, Los Angeles. For information, write The Hayes Foundation Drug Research Center, USC, Los Angeles, Calif. 90007.


AUGUST 2-5—Annual Meeting of International Doctors in Alcoholics Anonymous. The Inn of the Hills, Kerrville, Texas. Information from Information Secretary IDAA, 1950 Votey Road, Youngstown, Ohio 44511.

Scholarship Available for Rutgers Summer Institute

The A. E. Bennett Scholarship for study at the Physicians Institute of the Rutgers Center of Alcohol Studies summer program is again available this year. The scholarship, which provides tuition, room and board, is open to physicians, including medical students. The institute will take place June 24-July 13, at New Brunswick, N.J. Interested physicians should apply to American Medical Society on Alcoholism, c/o R. Fox, M.D., 150 East 52nd Street, New York City 10022.

LETTER

Editorial

Restore Funds to Alcoholism Research Projects

During the past week, the editor has learned of three major research efforts in alcoholism which are grinding to a halt under the new stringent financial limitations imposed on HEW. All these projects are being carried out by investigators of high capability and international fame who have been working in widely different aspects of biomedical and epidemiological alcohol research for over a decade. They may be forced to change their fields of interest.

In two of these cases renewals had been approved—there is no money to fund any competing renewals or any new research projects even if approved. Many noncompeting continuations will obtain their funds, but will probably have to take a 10-15% cut. Treatment programs are facing similar, although not so drastic, money shortages.

If these efforts are discontinued, the significant progress toward a solution to the problems of alcoholism has been made in the recent past will be seriously impaired. Fundamental changes in our thinking about the biology of alcoholism have occurred, and affect educational, preventive, and treatment possibilities.

We strongly urge our readers to express their concern about the future of alcoholism research to the Hughes Committee, which is presently holding hearings on a new appropriations bill, and to their own Congressmen. The encouraging light that has only too recently been turned on the subject of alcoholism must not be extinguished now.

FAS

Books

Proceedings of the Seminar on Alcoholism Emergency Care Services

Proceedings of seminar held March 1972, describing various ways and settings in which emergency care services, such as detoxification, can be delivered to alcoholics.

Who Cares About An Alcoholism Program in the General Hospital?
WHY DOCTORS AVOID EARLY DIAGNOSIS OF ALCOHOLISM

Physicians may avoid an early diagnosis of alcoholism for both conscious and unconscious reasons, Ephraim T. Lisansky, M.D., Professor of Medicine and Associate Professor of Psychiatry at the University of Maryland School of Medicine, told the New York State Medical Society at its General Session on Alcoholism held February 12 in New York.

Among the conscious reasons for avoiding the diagnosis are: lack of knowledge about alcoholism; feelings of uncertainty about what alcoholism is; vagueness about the limits of heavy drinking; the discovery that many patients want a definition of alcoholism for the purpose of refuting it for their own specific situations; a confusion over whether alcoholism is an illness or a "symptom of something else"; a lack of understanding about the complex interrelationships between physical and emotional problems; unfortunate experiences with alcoholics who have resisted treatment; and lack of knowledge of current resources in the management of alcoholics and their families.

Equally important, said Dr. Lisansky, are the more or less unconscious reasons, which may include: anger at the alcoholic who is felt to be willful, uncooperative, and unmodifiable; the presence in the physician's family of alcoholics, which may be either a positive or negative influence; fears of losing the patient if he is told he is an alcoholic; doubts about whether alcoholism is really an illness or a sign of misbehavior; misgivings about the physician's own drinking pattern; and fear of legal reprisals.

Essentials of Alcoholic Detoxification Programs

Every effective alcohol detoxification program should have the following ingredients, said Dr. Iber. Approximately 200 hours of training are needed to produce a competent paramedical aide, and hospital back-up for evaluation and admission is essential. Each nonprofessional must have the confidence that if he is in doubt about the treatment he can send the patient to the hospital for confirmation, reappraisal or support. With this sort of facility, 98% of street alcoholics can be cared for by paramedical personnel and only 2% need enter the hospital.

Dr. Stanley E. Gitlow, M.D., moderated the alcoholism session, which was entitled "Alcoholism—the Doctor's Dilemma?" Other speakers included LeClair Bissell, M.D.; John Norris, M.D.; Luther Cloud, M.D.; and Thomas Jones, M.D.

Membership Application

American Medical Society on Alcoholism
C/o Ruth Fox, M.D.
150 East 52nd Street
New York City 10022

Name
Address
City
Zip

Degrees
Specialty
Nature of interest

Enclosed
Bill Me

Dues $25 (Dues include subscription to Physician's Alcohol Newsletter)

BOOKS

Alcoholism and Driving
By Carl J. Bridge, M.D. Springfield, Ill.: Charles C. Thomas, 1972. 84 pages.

From a random group of 200 cases, the author studied reports on alcoholism of 173 people arrested for drunken driving, and suggests remedies.

Interaction of Alcohol and Other Drugs
New Procedure Improves Determination of Blood Ethanol Concentration

A modified procedure for the automated fluorometric enzymatic determination of ethanol concentration in blood has been developed by Donna W. Payne and Fred W. Ellis. The procedure, which uses the Technical AutoAnalyzer® II rather than the AutoAnalyzer® I, was described to the Technicon International Congress on Automated Analyses held in June 1972.

The new procedure has several advantages: The AAII is more elegant in design and thus easier to use. It is also a semi-micro operation, and reagent consumption is considerably lower than in the AAI. Furthermore, sample analysis is faster. More samples (at least 60) may be run per hour, and the time interval from sample pick-up to recording of the signal is reduced from 16 min. to 12½ min. Data are more reliable due to a longer steady-state period. In most cases variation between replicate peaks is negligible. With a 1:151 dilution of blood the range of sensitivity is similar to that of the AAI method, 10 mg-300 mg ethanol/100 ml of whole blood. Undiluted blood or weaker dilutions would give values in the range of 0.2 mg/100 ml to values of 600 mg/100 ml and considerably higher.

New Jersey Family Physicians Study Alcohol

"While treating all alcoholics alike may be convenient, stereotyping relieves us from having to come to terms with them as individuals," Dr. Anthony Reading, director of the alcoholism programs at Johns Hopkins Hospital in Baltimore, told the New Jersey Academy of Family Physicians.

Dr. Reading was one of four major speakers at an accredited postgraduate educational program dealing with the treatment of alcoholics by family physicians, part of the meetings of the Academy held February 25-28.

He went on to say that while there is no definite "alcoholic personality," there is a combination of probable personality traits to look for to bridge the gap until treatment can be individualized.

These include low frustration levels, excessive dependency often expressed as "pseudo-independence," feeling of inferiority and self-doubt, fear of rejection with subsequent superficial relationships with others, denial or rationalization of drinking habits, fantasies, depression, and feelings of "emptiness."

Dr. Eric Fine of the Department of Psychiatry, University of Pennsylvania, told the group that alcoholism is a treatable disease, even though there is no cure at this time. Alcoholism should be considered a chronic disease like schizophrenia, in which limited goals are acceptable. He stressed the need for physicians to understand not only the illness but also their own deep-seated attitudes toward alcohol so that they can cope with situations such as the ones in which patients on the road to recovery resume active drinking.

Others on the panel were Dr. LeClair Bissell, chief of the Smithers Alcoholism and Treatment Center, Roosevelt Hospital, New York City; and Dr. Frank A. Seixas, Medical Director of NCA and editor of PAN.
RESEARCH and REVIEW

28 Cases of Cobalt-Beer Cardiomyopathy Analyzed

Cobalt-beer cardiomyopathy, an apparently new, bizarre syndrome characterized by fulminating heart failure in heavy beer drinkers, first appeared in Quebec City, Canada, in 1966. The victims suffered from severe cardiomyopathy, which apparently resulted from drinking a brand of beer to which cobalt had been added.

Carl S. Alexander, M.D. of the Cardiovascular Section of the VA Hospital in Minneapolis studied 28 cases of this syndrome from 1964 to 1967, finding a mortality rate of 18% for the acute illness but a total mortality of 43% when late deaths are considered.

Clinically, the syndrome differed from alcoholic cardiomyopathy and beriberi by its rather abrupt onset of left ventricular failure, cardiogenic shock and acidosis. Pericardial effusion and polycythemia were present in the majority and suggested cobalt intoxication. The cardiotoxic effect of cobalt is difficult to explain because the amount ingested in the beer (up to 10 mg/day) is far less than the amount used in the treatment of refractory anemia (up to 50 mg/day).

Other factors were considered important in rendering the heart more sensitive to cobalt. These included inadequate protein and vitamin intake, especially thiamine, zinc depletion and prior heart damage from alcohol.

Some survivors in the Minneapolis study continued to have clinical disability and demonstrate abnormal electrocardiographic changes. (American Journal of Medicine, Vol. 53, October 1972, pp. 395-417).

Disulfiram Augments Therapeutic Effect of Sodium Warfarin

Disulfiram (Antabuse) increased the anticoagulant effect of sodium warfarin therapy, by inhibiting its metabolism in the liver, in most but not all of 8 normal male subjects. The study, conducted by Robert A. O'Reilly, M.D., of the Department of Medicine, Santa Clara Valley Medical Center and the University of California (San Francisco), showed for the first time an augmentation of the therapeutic effect of a drug by disulfiram in humans.

A single dose (1.5 mg/kg body weight) and a 21-day course of sodium warfarin were administered orally, with and without disulfiram orally. A significant augmentation of both the hypoprothrombinemia (P less than 0.01) and the plasma warfarin level (P less than 0.05) occurred with daily disulfiram compared with warfarin alone, for both the single dose and the 21-day experiments. In the single-dose and 21-day experiments a highly significant correlation of the changes in plasma warfarin levels and in the hypoprothrombinemia occurred, which was positive in 13 and negative in 2 experiments. (Annals of Internal Medicine, Vol. 78, No. 1, January 1973, pp. 73-76.)

Sleep of Dry Alcoholics Similar to Normal Levels

In most respects the sleep characteristics of 10 alcoholics who had been dry for one to two years were not significantly different from normal levels for their age. The ECG sleep study was conducted by John Adamson, M.D. and J. Alan Burdick, M.A. of the Department of Psychiatry, University of Manitoba, Canada. The project sample was probably biased toward representing dry alcoholics who sleep well.

The only clear evidence of persisting fragmentation of sleep was a significant elevation of a number of stage changes. The percentages of stages 3 and 4 were the same as for alcoholics on their tenth night after withdrawal. In comparisons with normal levels, the percent of stage 3 was well within the normal range, but the percent of stage 4 was decreased. There were other indications that heavy drinking does lead to impaired slow-wave sleep. (Archives of General Psychiatry, Vol. 28, January 1973, pp. 146-149.)

Changes in Voluntary Alcohol Consumption in Albino Rats

A study of the effects of some metabolically active drugs on the voluntary alcohol consumption of albino rats showed that some ethanol-induced disturbances in the intermediary metabolism, rather than some disturbance in ethanol elimination itself, were mainly responsible for increased and decreased consumption. The work, conducted by Matti E. Hiltin of the Research Laboratories of the State Alcohol Monopoly of Finland, tested the effects of propyl thiouracil (PTU), triiodothyronine (T3), promethazine, and ethyl-a-phenoxyisobutyrate (clofibrate). PTU increased and all the other drugs decreased significantly the caloric consumption of the voluntarily consumed ethanol. No accumulation of acetaldehyde occurred in the peripheral blood of the experimental animals during ethanol elimination. (Finnish Foundation for Alcohol Studies, Vol. 20, 1972, pp. 87-92)

Physician Care of Alcoholics in North Carolina

The average alcoholic patient in Wake County, North Carolina, makes 3 or 4 visits to his doctor every year, and the majority of physicians do provide medical and referral services for these patients, according to a questionnaire survey undertaken by John A. Ewing, M.D., Director of the University of North Carolina Center for Alcohol Studies. A high percentage (46%) of the 277 registered physicians in Wake County completed the questionnaire. The results showed that general practitioners and internists report seeing more alcoholic patients per week than do psychiatrists and surgeons. Psychiatrists see fewer patients per week, however, and presumably spend more time in the treatment of individual alcoholic patients. 88% of the physicians report that they sometimes refer their patients to psychiatrists, and 79% may refer them to other counseling services. 40% sometimes prescribe Antabuse and 83% choose other courses of treatment, the most common being referral to AA. (North Carolina Medical Journal, Vol. 33, No. 10, October 1972, pp. 859-861.)

Genetic Link to Alcoholism Found in Adoption Study

(Continued from page 1)
when comparing alcohol and marijuana's effect on mood states. Compared with baseline levels the patients reported that both drugs made them feel considerably more "carefree" but other changes in mood were less.

However, alcohol caused a much greater disruption in performance tasks (handsteadiness, attention quotient, finger dexterity and stroop difference) than did marijuana.

Further research on the use of marijuana as an "alternate high for alcoholics," when given concurrently with disulfiram, is now in progress, according to Dr. Rosenberg.

Ethnic Sensitivity to Alcohol in Infants

Newborn infants show clear-cut ethnic differences in respect to sensitivity to alcohol, reported Peter H. Wolff, M.D. of the Children's Hospital Medical Center of Boston. Nearly three-fourths of Mongoloid (Japanese, Taiwanese, and Korean) infants responded to alcohol with a visible flush and an increase of optical density greater than 5 mm. In contrast, only 1 of the 20 Caucasian infants showed a visible flush and a measurable densitometer response. Changes of pulse pressure could not be measured reliably in infants, but were noted to occur in one-third of those who flushed visibly. Newborn infants showed the same group-dependent variations in alcohol response as adults studied, leading Dr. Wolff to conclude that postnatal dietary factors and cultural variations in drinking habits did not account for the observed differences. The population differences in flushing to alcohol no doubt reflect a specific and probably genetic difference in autonomic nervous system responsivity.

Other Speakers

Other speakers in the panel on alcoholism included Nancy K. Mello, Ph.D., chairman, who described the effects of alcohol on short-term memory in alcoholics; Jack H. Mendelson, M.D., who discussed the behavioral effects of alcohol and beta-adrenergic blocking agents; and Donald M. Gallant, M.D., who reviewed treatment approaches for the chronic alcoholic municipal court offender.