

# PHYSICIAN'S ALCOHOL NEWSLETTER

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## HEMATOLOGIC ABNORMALITIES OCCUR IN WELL-NOURISHED ALCOHOLICS

The hematologic alterations that frequently accompany acute alcoholism occur even when the alcoholic is not suffering from a nutritional deficiency. Dr. John Lindenbaum, Mount Sinai School of Medicine, and Dr. Charles Lieber, Bronx VA Hospital, report evidence that vacuolation of bone-marrow pronormoblasts occurred in 9 alcoholic subjects when ethanol was administered under metabolic ward conditions and when excellent intake of protein and vitamins was maintained. Folic acid was also administered in pharmacologic doses. (New England Journal of Medicine, Aug. 14, 1969).

In previous studies both alcohol ingestion and nutritional deficiency had been present, and the importance of ethanol alone in producing hematologic abnormalities could not be ascertained.

The vacuolation of marrow pronormoblasts appeared to be dose-related, and was seen consistently only with the larger amounts of ethanol. Vacuolation of promyelocytes was seen even less and then only with the larger doses. Interference with folate metabolism appears to be an unlikely factor in the pathogenesis of the vacuolated pronormoblasts, since they developed despite the concomitant administration of large doses of folic acid, and serum folate remained constant during the study period.

Slight increases in serum iron occurred during the ethanol period, followed by a statistically significant fall during the withdrawal period. It is uncertain whether these changes reflect alcohol-induced interference with erythropoiesis, since there was no associated depression of the reticulocyte count, slowing of iron clearance rate, or diminution of red-cell utilization of radioactive iron as occurs in chloramphenicol toxicity. The changes in serum iron may reflect alcohol-induced abnormalities of hepatic iron storage or reticuloendothelial function.

Dr. Lindenbaum and Dr. Lieber conclude that ethanol may act as a hematologic toxin by an additional mechanism other than as a folate antagonist.

## Concept of Alcoholic's "Craving" for Drink Lacks Support in Behavioral Studies

The validity of the concept of "craving" is not supported by studies in the behavioral pharmacology of alcohol, according to Nancy Mello, Ph.D., of the National Center for Prevention and Control of Alcoholism. The "craving" theory, as defined by Mardones, postulates that "every time the subject starts drinking, he is compelled to continue until he reaches a state of severe intoxication."

Speaking to the American Medical Society on Alcoholism in New York, Dr. Mello reported that alcoholic subjects in the NCPA studies who were permitted to program their own drinking showed highly variable patterns after an initial consumption sufficient to raise blood alcohol levels above 150mg/100 ml. None of the subjects who were allowed to drink alcohol in any volume at any time by working at a simple operant task lost control of their drinking. Moreover, subjects given an opportunity to drink continuously for 30 days initiated and terminated several drinking episodes on their own.

## Hughes Subcommittee Explores Alcoholism Control

The urgent need for alcoholism care and control programs received national attention as the Senate Subcommittee on Alcoholism and Narcotics heard three days of testimony in July. Senator Harold E. Hughes (D-Iowa) led the hearings, which focused on the impact of alcoholism, treatment services, and future needs.

Among those who testified were Dr. Roger Egeberg, Assistant Secretary for Health and Scientific Affairs, HEW; Dr. Luther Cloud, President, NCA; Bill W., co-founder of AA; Mercedes McCambridge, actress; Sen. Jacob Javits (R-NY), co-author of Javits-Moss Alcoholism Control Act of 1969; George Dimas, President, NAAAP; and Mrs. Marty Mann, founder and consultant of NCA.

"There are somewhere between four and a half and six million alcoholics in this country, and most of them are not getting the care they need. If they were, experience shows that a great many of them could be restored to healthy, useful, and productive lives. The challenge we face as a nation is to help these people. For my part, and to the best of my ability, that is what I intend to do."

**Dr. Roger Egeberg, testifying before the Senate Subcommittee on Alcoholism and Narcotics.**

In addition, Dr. Mello cited some evidence that the volume of alcohol consumed can be controlled by the requirements of the schedule of reinforcements. Subjects required to make 32 consecutive correct responses on a simple tracking task drank half as much as those required to make 16 correct responses.

She suggested that a general awareness of the limitations of the concept of "craving" might lead to a re-evaluation of the usual therapeutic goal of total abstinence for an alcoholic patient.

In summarizing the general status of behavioral studies of alcohol, Dr. Mello stressed that relevant data are "equivocal, fragmentary, and often impressionistic." She emphasized that the effects of alcohol differ for alcoholic and nonalcoholic individuals. Alcoholics frequently show an increase in anxiety and depression and further impairment of an already fragile self-esteem. Prolonged alcohol intake produces an increased fragmentation of normal sleep patterns, in which the individual may sleep many short periods rather than for 6 to 8 consecutive hours.

Alcohol may accentuate a patient's characteristic way of dealing with his environment, although it does not necessarily trigger any particular pattern of social interaction. Thus far no common constellation of personality or psychodynamic variables has been found to characterize alcoholic individuals.

Dr. Mello pointed out that these empirical observations are inconsistent with many prevailing ideas about alcohol.

## EDITORIAL

In an article in *Modern Medicine* (July 14, 1969), Dr. Andrew Ian Malcolm, a Toronto psychiatrist, concludes that alcohol use has been acculturated in our society and calls for more basic research on alcoholism. He finds defects in all the various pharmacological approaches, such as tranquilizers, Antabuse, aversion, metronidazole, and LSD. He states that group therapy, including AA, has "not improved in value" in many years.

At this juncture, Dr. Malcolm curiously asks us to give up the medical model of alcoholism and to put it in the hands of "addictionists" who "will not invariably be doctors of medicine." He says "there must be thousands of such specially trained people." One must ask at this point, what will we train them in? Presumably in group psychotherapy, which, according to Dr. Malcolm, "has not shown much new promise."

Dr. Malcolm continues, "Of course alcoholism is a medical condition. Who can deny that cirrhosis and peptic ulcer

## We Must Retain the Medical Model for Alcoholism

and Wernicke's encephalopathy are medical disorders? But alcoholism is also a psychiatric illness. And it is a condition that interests anthropologists and sociologists and law enforcement agencies and indeed practically everybody . . ." Are we then to make the "addictionist" expert in all of these disciplines (and incidentally in the many interlocking but different parameters needed for the treatment of drug addiction, smoking, etc.)?

Those trained in the disciplines of medicine and public health will recognize that many medical (including psychiatric) conditions have enlisted the interest of law enforcement agencies (McNaughton's rule, quarantine, enforced premarital serology tests, the current issue of legal death) and sociologists and anthropologists (population control, spread of syphilis to the New World, incidence of rheumatic fever, dietary inadequacy) and geneticists (malaria and sickle cell anemia, natural radiation hazards, etc.).

It is also true that the medical pro-

fession has enlisted in the past, and will need even more in the future, the services of paramedical personnel. Not only do we need physical therapists for polio and stroke victims, we need more vocational rehabilitationists, Braille teachers, and voice therapists. Just as we depend on AA, we need people forming ileostomy clubs, golden age clubs, weight watchers, neurotics anonymous, and so on.

Dr. Malcolm says the "moralistic and punitive period of our history" in our attitudes toward alcoholism has ended. Perhaps the end is in sight, but it is not yet here. It would seem retrogressive to take alcoholism out of the medical field at a time when medicine is just beginning to lift the veil of indifference which has so long been lowered over it. Until we have really addressed ourselves to the problem with all the resources of the medical community and until they have been proved insufficient, alcoholism must be considered a medical disease.

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## PUBLICATIONS

### Rehabilitation of the Alcoholic: A Training Guide

Washington: Rehabilitation Services Administration, HEW, Series No. 69-11, 1969.

A report from the Study Group on Rehabilitation of the Alcoholic and Public Offender, Sixth Institute on Rehabilitation Services, held May 20-22, 1968, University Park, Penn., James McClary, Chairman.

### Three Pamphlets For Teenagers

#### Alcoholic Beverages: Social Use . . . Or Sick Abuse?

Helene MacLean, in consultation with Frank A. Seixas, M.D. Hastings-on-Hudson, N.Y.: H. K. Simon Co., Publishers, 1969. 13 pp.

### Thinking about Drinking

Washington: Children's Bureau and National Institute of Mental Health, Public Health Service Publication No. 1683, 1968. 31 pp. 20¢ per copy, \$15 per 100.

### The Two Faces of Drinking

Albany, N. Y.: Bureau of Alcoholism, New York State Department of Mental Hygiene, 1969. 12 pp.

## BOOK REVIEW

### Alcoholism

David J. Pittman, editor. New York: Harper & Row, 1967. *Readers in Social Problems Series*, Donald R. Cressey, consulting editor. Paper.

Dr. Pittman's interest in alcoholism has been so long-standing, so scientific, and so fruitful that attention must be given this book, even though it was originally published two years ago. It contains much valuable material in readings arranged under six headings: drinking patterns and alcoholism, a cross-cultural perspective; physical and psychosocial orientations to alcoholism; sociocultural aspects of alcoholism; treatment of alcoholics, some social considerations; what happens to alcoholics; and social responses to alcoholism.

Not much space has been devoted to the physiological and psychiatric bases for alcoholism, since the book is primarily addressed to sociologists. Special attention is properly given to alcoholism among American Negroes, showing higher rates of alcoholism and of problems associated with alcoholism, as well as strong anti-alcohol bias among upper-status Negro families. A fascinating and original section by E. Holt Babbitt details the financial cost to the alcoholic of his problem.

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## MEETINGS

OCTOBER 9-11—International Symposium on Alcoholism, Zagreb, Yugoslavia.

OCTOBER 12-15—Fourth Annual Conference of Association of Halfway House Alcoholism Programs of North America, Mayo Hotel, Tulsa, Oklahoma. Sponsored by Tulsa Council on Alcoholism, LLI Parkland Plaza Building, 2121 South Columbia, Tulsa, Oklahoma 74114.

OCTOBER 29-30—American Association for the Study of Liver Diseases, Sheraton Hotel, Chicago, Ill.

NOVEMBER 10-14—American Public Health Association, Philadelphia, Pa.

NOVEMBER 19-22—International Symposium on Alcoholism and Drug Dependence, Lindau, Germany.

NOVEMBER 19-23—Academy of Psychosomatic Medicine, Mt. Shadows Hotel, Scottsdale, Arizona.

FEBRUARY 1-14, 1970—29th International Congress on Alcoholism and Drug Dependence, Sydney, Australia. (For information, write Executive Director, Box 3284, G.P.O., Sydney, N.S.W. Australia 2001.)

JUNE 20, 1970—National meeting of American Medical Society on Alcoholism, Chicago.

# ALCOHOL AND THE AUTOMOBILE

Reports on Medical, Legal, Preventive Aspects

The frequently fatal attraction between alcohol and the automobile was discussed in various aspects at the Third Triennial Congress of the International Association for Accident and Traffic Medicine held in New York over the Memorial Day weekend.

## Drugs in Drinking Drivers

A 3-year study of 10,436 routine drinking driver cases in Santa Clara County, California, showed that drugs were involved in almost 25% of the cases. Bryan S. Finkle, Forensic Toxicologist, reported that a total of 273 different drugs were encountered, over one third of them problem, dangerous drugs. These problem drugs were involved in 1,406 cases. About 60% of the drug occurrences were in conjunction with alcohol concentrations of less than 0.05%. Except for a 1968 increase in secobarbital, the annual statistics for particular drugs were very similar.

## Michigan Alcoholism Screening Test

Dr. Melvin Selzer, University of Michigan Medical School, described the Michigan Alcoholism Screening Test (MAST), which consists of 26 questions devised to provide a consistent quantifiable interview instrument for the detection of alcoholism. Primarily designed for accident reduction programs, it is arranged so that some questions will appear sufficiently "neutral" to permit evasive alcoholics to betray their drinking problems. The validity of the MAST is now being investigated, but preliminary reports indicate that many drivers who appear determined to hide serious drinking problems reveal their illness by giving "alcoholic" responses to key questions.

## Problem Drivers and Drinking Drivers

Project ABETS at the University of Vermont is trying to determine whether there are systematic differences between drinking drivers who become involved in crashes and those who do not. The results of information about two separate samples, driver respondents and drinker subjects, were reported by M. W. Perrine. 68% of drivers who died within 6 hours after highway crashes in 1967-68 had alcohol in their blood, whereas alcohol was present in 13% of drivers not in crashes but who were stopped at roadblocks under similar conditions of time and place to the crashes. Fatally injured persons aged 25 or older with alcohol in their blood were significantly more likely to have fatty changes in the liver than were those without alcohol. A consistent relationship was found among drivers stopped at roadblocks between presence of alcohol, reported drinking habits, and poor driving record in the previous 5 years.

## Drunken Drivers Ignore Seat Belts

Drivers arrested for driving while intoxicated in Olmsted County, Minn., never use and never intend to use automobile safety devices such as the seat belt. These persons, say Dr. Allen P. Schlein and Dr. Joseph M. Janes of the Mayo Clinic, contribute to many highway fatalities. Many of the individuals interviewed had had several previous encounters with the law, but punishment had not changed their attitudes.

## Alcohol Limits Survival Chances

An analysis of traffic accident fatali-

ties in Philadelphia presented by Kenneth R. Bordner of the Franklin Institute Research Laboratories showed that the victims in whom traces of ethyl alcohol were found survived for a significantly shorter time than those who had apparently not consumed any alcohol before the accident.

## Rise in Puerto Rican Traffic Deaths

Sidney Kaye of the University of Puerto Rico found that blood alcohol was positive in 96 of 206 traffic fatalities studied. Traffic fatalities are the largest cause of accidental death in Puerto Rico. Most frequently involved are males and pedestrians. Kaye suggests that drinking habits and culture of Puerto Ricans may differ from mainland residents, since acute alcoholism is an infrequent cause of death but alcohol is heavily implicated in traffic accidents.

## Alcohol in Pedestrian Deaths

Analysis of drinking by pedestrians prior to accident involvement in a Wayne County (Detroit) study showed that police reports were unreliable. Donald F. Huelke and Rollin A. Davis of the University of Michigan report that elevated blood alcohol levels were found in 42% of the fatalities, whereas police reports indicated only 7% had been drinking.

## Physicians and Accident Prevention

R. F. Borkenstein of the Department of Police Administration of Indiana University called on physicians to aid in the "primary prevention" of alcohol-related traffic deaths by recognizing and treating drinking problems in their patients and by supporting alcoholism control programs in the community. Acknowledging that the traditional punitive treatment of drinking drivers ignores their individual differences and may be totally ineffective in many cases, Borkenstein suggested that law and medicine join together to see that public policy reflects scientific knowledge about alcohol.

## Other Reports

Other reports presented to the Congress include: "Personality Syndromes in Alcoholic Drivers with High Accident Rates," Reginald G. Smart; "Research Concerning Enforced Blood Samples of Traffic Violators," Dr. W. Spann; "Current Trends in German Legislation on Drunken Driving," Dr. Herbert Elbel. The proceedings of the Congress will be published by the International Association for Accident and Traffic Medicine, 520 First Avenue, New York 10016.

## Membership Application

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## Research & Review

### Spinal Fluid Lactate Increases in Alcoholic Delirium Tremens

Increased spinal fluid lactate in the presence of normal serum lactate was found in 34 alcoholics with uncomplicated DT's. Dr. Carlo H. Tamburro of New Jersey College of Medicine reported to the American College of Physicians meeting in Chicago.

The increase was not present in 8 alcoholics without withdrawal symptoms or in 12 nonalcoholics with neuropsychiatric syndromes that simulate DT's.

Dr. Tamburro found that normally lactate accumulation in the spinal fluid is associated with increased spinal, and often blood, pyruvate. However, the mechanism for selection elevation of cerebral spinal fluid lactate in DT's is not known. It may involve reduced pyruvate oxidation.

### Muscle Weakness and Necrosis Tied To Potassium Depletion in Alcoholics

Muscle weakness and necrosis in 4 chronic alcoholics was linked to potassium depletion by Dr. Joseph B. Martin of the University of Rochester School of Medicine at the 21st annual meetings of the American Academy of Neurology in Washington.

Serum electrolyte studies showed hypokalemic, hypochloremic alkalosis in the patients, all of whom had developed acute muscle weakness prior to hospitalization. Although Dr. Martin believes that potassium depletion is the key factor, he pointed out that the decreased calcium or magnesium, the direct toxic effects of alcohol, or malnutrition may have contributed to the clinical and histological findings.

## SURVEY OF NYC DOCTORS SHOWS GROWING INTEREST IN ALCOHOLIC PATIENTS

Most physicians in New York City who responded to a survey on medical practice with alcoholics do treat some patients with drinking problems, although their attitudes toward alcoholism diagnosis and treatment vary considerably. Their interest in the problem appears to be growing, for the response rate for all physicians in the sample was 56.6%, whereas only 41.1% responded to a similar survey in 1962. The survey was conducted by Margaret B. Bailey, D.S.W., for the Committee on Alcoholism of the Community Council of Greater New York.

Seven-tenths of the physicians regard alcoholism as a symptom of underlying emotional problems, whereas only two-fifths agree that alcoholism is a disease. However, more than one-fourth subscribe to both the disease and the symptom formulation. The difficulty appears to lie in the absence of a single etiology and a specific therapy. Although frankly moralistic responses were rare, one physician described alcoholism as "a sin and torment of satanic source, as are adultery and other vices."

Hospitals were more willing in 1968 to admit frankly diagnosed alcoholics than they were in 1962, an increase for all physicians from 16.7% to 23%. Psychiatrists have the greatest access to hospitals, and general practitioners the least.

Copies of the report, "A Survey of Medical and Psychiatric Practice with Alcoholics, New York City, 1968," are available from the Committee on Alcoholism, 225 Park Avenue South, New York 10003.

## AMSA MEETING HEARS KISSEN AND OTTENBERG

The decision of when, why, and how to hospitalize an alcoholic patient was discussed by Martin D. Kissen, M.D., Medical Director of the Pennsylvania Institute for Alcoholism and Narcotics Addiction, at the July meeting of the AMSA at Rutgers. Dr. Kissen outlined three reasons for hospitalization: to forestall impending complications such as DT's, to keep the alcoholic from obtaining alcohol, and to protect him and his family from injury. In Philadelphia only three general hospitals will accept alcoholics under a diagnosis of alcoholism, although many will accept them under a different diagnosis or as private patients of staff members.

Dr. Donald Ottenberg then reported on the two-year experience of the Eagleville (Pa.) Interdisciplinary Rehabilitation Program for Alcoholics. Staff attitudes have been favorably changed by participation in marathons (one- or two-day continuous group therapy sessions). Selected patients also participate in the marathons, which have "washed away false lines of demarcation between staff and patients."

### AMSA Awards Scholarship

The American Medical Society on Alcoholism has established a scholarship program for the Physicians Institute at the Rutgers Summer School of Alcohol Studies with a grant provided by the A. E. Bennett Neuropsychiatric Research Foundation of Berkeley, California.

Louise Fialkowski, M.D., an internist in the psychiatry residency program at Roosevelt Hospital, was awarded the first scholarship and attended the Institute this summer.

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