

PHYSICIAN'S ALCOHOL NEWSLETTER

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EFFECTS OF ALCOHOL WEIGHED AT LIVER DISEASE MEETINGS

What is the truth about the effect of alcohol on hepatic collagen accumulation? New evidence on this and other questions of the effect of ethanol on animals and man were prominent topics for discussions in the program of the 22nd Annual Meeting of the American Association for the Study of Liver Diseases held in Chicago November 3-4, 1971. Following are brief reports of some of the papers presented at the meeting.

Ethanol Induces Collagen Synthesis in Liver

T. Chen and C. M. Leevy of the College of Medicine and Dentistry of New Jersey and the East Orange VA Hospital investigated the influence of ethanol on collagen synthesis as evaluated by *in vitro* incorporation of ^3H proline into collagen, using liver biopsy specimens from subjects with morphologic evidence of alcoholic fatty liver, viral or alcoholic hepatitis, or active cirrhosis. There was a 2-3-fold increased uptake of ^3H proline by biopsies of hepatitis or cirrhosis incubated with ethanol, but they failed to find this in tissue showing only fatty liver.

In vitro addition of ethanol had no effect on incorporation of ^3H thymidine into DNA or ^3H proline uptake by cultured fibroblasts. Thus, the authors conclude that ethanol invokes a significant increase in *in vitro* collagen synthesis by liver biopsy specimens from patients with acute inflammation and active fibrosis, but not fatty liver. (For another view of this subject, see PAN, Vol. 6, No. 2, Spring 1971, p. 6.)

Ethanol Affects Bile Secretion in Rats

Ethanol has a toxic effect on bile formation when blood ethanol levels are elevated in rats, said W. C. Maddrey and J. L. Boyer, Department of Medicine, Yale University. They pair-fed 300 rats ^{realy} a 25% solution of 95% ethanol or isocaloric glucose in drinking water for 2 weeks. In contrast, when blood ethanol levels are low, the chronic ad-

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Mitchell Calls for New Legal Policy for Alcoholics: Says Aim Should Be "To Heal, and Not To Punish"

"Alcoholism is not a legal problem—it is a health problem. More especially, simple drunkenness should not be handled as an offense subject to the processes of justice. It should be handled as an illness, subject to medical treatment." Acknowledging that this view is not commonly accepted throughout the country, former Attorney General John N. Mitchell, speaking at a dinner Dec. 9 honoring R. Brinkley Smithers, called for a new policy—"to heal, and not to punish."

The present system has failed, said Mr. Mitchell, and is a serious misuse of the limited resources of the criminal justice system. Still more important, though, is the fact that this system is absolutely ineffective as a lesson or deterrent. Those arrested for drunkenness quickly return through the "revolving door" of the courthouse.

WORKSHOP REVIEWS MEMORY AND ALCOHOLIC BLACKOUT

What happens to memory during an alcoholic blackout? The current state of knowledge on the memory process in general and the specific effect of alcohol were the subject of a workshop held in St. Thomas, Virgin Islands, March 23-24. During the workshop, which was sponsored by the National Institute on Alcohol Abuse and Alcoholism, experts discussed blackouts, the memory loss involved, and its relationships to other types of memory loss, as well as actions of alcohol which might account for the phenomenon.

Alcohol Causes Two Types of Memory Loss in Blackouts

Donald Goodwin, M.D., of Washington University in St. Louis, Mo., keynoted the conference, defining blackouts as periods of memory loss for unforgettable events. Reviewing 100 men with blackouts, he found their average age 35 at the time of the first blackout. They had already been drinking in an alcoholic fashion for some time, and had already been hospitalized once. Blackouts never occurred on small amounts, but usually followed rapid drinking after relatively long periods of drinking. He defined two types: one in which there is a clear knowledge afterwards that the patients had had a memory lapse, were frightened by it, and no part of the memory came back. In the second type the memorable events could be remembered vaguely when called to attention, but the patient was not aware that a memory lapse had occurred.

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The process has also demeaned the courts and the administration of American justice, he declared, since drunk arrests in big cities are often, if not usually, brought before the judge en masse. The typical defendant is almost never represented by counsel.

Many policemen and judges are aware of the defects of this system, but in many places there is no substitute for dealing with public alcoholism. Law officials tend to develop a benevolent paternalism toward their charges—taking care of them the best they can within the limits of their authority and resources.

Federal courts have begun to rule that alcoholism is involuntary and that therefore it is not a legal offense in the ordinary sense. However, state laws have not been revised to agree with this new interpretation.

The Uniform Alcoholism and Intoxication Treatment Act, adopted by the National Conference of Commissioners on Uniform State Laws in August 1971, provided that (1) a person appearing to be incapacitated by alcohol must be taken into protective custody—not an arrest—by the police or a special emergency service patrol. He is to be taken to a public health facility for emergency treatment.

2. If the subject has inflicted physical harm on another or may do so, he may be committed for emergency treatment for up to five days on the certificate of an independent physician.

3. For a longer period up to 30 days, and with extensions for a maximum of seven months, his commitment must be made by a court.

Mr. Mitchell called for a "full-dress medical treatment"—not only a detoxification process, to help the alcoholic.

EDITORIAL

Protracted and Fruitless Negotiations: The AMSA-NCA Amalgamation

Since members of the American Medical Society on Alcoholism were urged in these pages several months ago to vote for amalgamation with the National Council on Alcoholism, it is the responsibility of this publication to apprise you of the progress of this venture. Because of his ties to both AMSA and NCA, your editor was not a member of the negotiating committee.

You voted with a resounding "YES" to the proposal that you join NCA. NCA had already made changes in its constitution to make this possible. However, the document which you ratified did not correspond to the previously negotiated agreement with NCA. This probably could have been rectified if more time had been allowed between the sending of the confusing ballot and the AMSA Annual Meeting, and certainly could have been rectified by sending a second ballot to you with the substance of the previously worked-out agreement. However, the AMSA negotiators elected at this time to present *new demands*, which they have, with ponderous slowness, formulated in such a way that they are unacceptable to NCA.

The previous agreement has many advantages to AMSA: office space, the use of other NCA departments, 1/2 of the

Board membership, segregated funds, the sure ability to collect tax-free gifts, the freedom to hold its own meetings, as well as to participate in NCA's, and the provision that AMSA will be consulted in all matters of medical policy.

The most important additional condition that AMSA is now demanding is to keep its own incorporation as an easy way to back out of the agreement, should there be a difference on policy matters. NCA will not accept this, since the tax results are probably unfavorable, and in effect NCA would be giving away much to gain nothing or even worse, much trouble. A linkage is desirable for the whole alcoholism movement but a public disruption of that linkage for a capricious reason would be a step backward. It is just such a public disruption of the linkage which has seemed to be a major aim of the AMSA negotiators, and this may bear upon an increasing caution on the part of NCA.

The time is very late, but it appears that NCA is still extending its welcome for a viable agreement.

We urge you to communicate directly to AMSA's president and to this paper your strong support of the NCA linkage. Your previously expressed wishes in this matter could otherwise be thwarted, by negotiators who are "protecting" you from evils which do not exist.

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BOOKS

Problem Drinking and Personality

By *Olav Irgens-Jensen*. Oslo, Norway: Universitetsforlaget, 1971. Distributed in U.S. by Rutgers University Center of Alcohol Studies. 151 pp. Illus.

This study, part of the Alcohol Research in the Northern Countries series, is based on the results of the Draw-a-Person Test administered to young Norwegian seamen in an attempt to determine whether certain personality characteristics are related to problem drinking. The test singled out in particular the problem drinker who attempts to suppress his need for dependence in some form of overcompensated masculinity.

"Alcoholism" in Progress in Neurology and Psychiatry

By *A. N. Browne-Mayers, M.D., Edward E. Seelye, M.D., Peter E. Stokes, M.D., and Frank Seixas, M.D.* New York: Grune & Stratton, 1971.

Chapter outlining recent developments in the field.

Biological Aspects of Alcohol

Edited by *Mary K. Roach, William M. McIsaac, and Patrick J. Creaven*. Austin and London: University of Texas Press, 1971, 471 pp. \$12.50.

Included are 18 papers read at the Third International Symposium on Advances in Mental Science held at the Texas Research Institute of Mental Sciences in November 1970. Among the topics are alcohol's interaction with other drugs, studies of its influence on behavior, and new hypotheses regarding the possible etiological role of alkaloids formed in the body after alcohol is metabolized. Each paper is followed by a report of the symposium discussion.

Biological Basis of Alcoholism

Edited by *Yedy Israel and Jorge Mardones*. New York: Wiley-Interscience, 1971. 453 pp. \$10.95.

Contributions by 29 researchers, reporting on investigations beginning at the subcellular and cellular levels and increasing in complexity.

SUMMER COURSES

JUNE 5-7—Delaware Summer School of Alcohol Studies. Information from Leon E. Petty, Director, Banton Bldg., 3000 Newport Gap Pike, Wilmington, Delaware 19808.

JUNE 5-7—Colorado Seminar on Alcohol and Other Drugs. Information from Graydon Dorsch, Alcohol and Drug Abuse Division, Colorado Dept. of Health, 4210 E. 11th Ave., Denver, Colorado 80220.

JUNE 5-7—Southwestern School of Alcohol Problems, University of Arizona, Information from Carleton S. Wilder, Director, P.O. Box 4845, University Station, Tucson, Arizona 85717.

JUNE 11-16—Midwest Institute of Alcohol Studies, Northwestern University. Information from James F. Griffin, Jr. Program Policy Advisor—Alcoholism, Dept. of Mental Health, 160 N. La Salle Street, Chicago, Ill. 60601.

JUNE 11-16—Maryland Institute of Alcohol Studies, General Level, Information from Ludwig L. Lankford, Institute Director, Division of Alcoholism Control, 2305 N. Charles St., Baltimore, Md. 21218. (Advanced level: June 18-30)

JUNE 14-20—Eastern Pennsylvania Institute of Alcohol Studies, Ursinus College, Collegeville, Penn. Information from Margaret Sutton, Penn. Dept. of Health, P.O. Box 90, Harrisburg, Penn. 17120. (Counselors course: June 18-23)

JUNE 18-23—New England School of Alcohol Studies, Salve-Regina College, Newport, R.I. Information from Jesse Trow, Director, Alcohol and Drug Abuse Programs, Health Dept. & Welfare, 61 S. Spring St., Concord, N.H. 03301.

JUNE 18-23—University of Utah School of Alcohol Studies, P.O. Box 473, Salt Lake City, Utah 84110.

JUNE 25-JULY 14—30th Annual Rutgers Summer School of Alcohol Studies. Information from Mrs. Marjorie L. Dreher, Secretary, Summer School of Alcohol Studies, Smithers Hall, Rutgers University, New Brunswick, N.J. 08903.

JUNE 26-30—New York University. Information from Prof. Marian V. Hamburg, School of Education, Room 54, South Bldg., Washington Square, N.Y. 10003.

JUNE 26-JULY 6—N.Y. State Summer Institute on Alcohol Problems, State University College at Buffalo, 1300 Elmwood Ave., Buffalo, N.Y. 14222.

Reports from Liver Disease Meetings

(Continued from page 1)

Administration of ethanol is associated with an increase in the rate of bile salt secretion, and enhancement of the non-bile salt dependent fraction of bile from the hepatocyte.

Cyanide-Binding Cytochrome Acts in Hepatic Ethanol Oxidation

Cyanide-binding cytochrome (CBC), a distinct hemoprotein with a high affinity for cyanide, is contained in hepatic microsomes. To determine whether CBC plays a role in the activity of the microsomal ethanol oxidizing system (MEOS), J.-G. Joly, H. Ishii and C. S. Lieber of the Bronx VA Hospital and Mount Sinai School of Medicine studied the effect of cyanide on MEOS activity of rat liver. They found (1) MEOS activity and ethanol binding to microsomes are similarly and competitively inhibited by cyanide; (2) these *in vitro* effects are achieved by low cyanide concentrations which bind to microsomal CBC rather than cytochrome P-450; (3) ethanol consumption produces a doubling of microsomal CBC content and MEOS activity.

Microsomal Activity in Rats Changes with Prolonged Ethanol Ingestion

Prolonged ethanol ingestion in rats both increases and decreases microsomal drug metabolizing enzyme systems in rats, according to studies by R. K. Ramsey and H. J. Fallon of the Departments of Medicine and Pharmacology of the University of North Carolina. Activity in the microsomal N-demethylase system was reduced, and aniline hydroxylase activity increased in male rats pair-fed chow and ethanol or an equivalent amount of glucose in water for 10 to 28

days. The authors conclude that ethanol ingestion may inhibit the metabolism of agents such as chlorthalidone which depend on demethylation for metabolism.

Circulating Vasodilator Substances in Chronic Alcoholic Liver Diseases

To determine whether the presence of circulating vasodilator substances play a role in the increased cardiac output and diminished vascular resistance found in many patients with chronic liver disease, P. Wong, R. W. Colman, R. Talamo, and B. M. Babior of Boston City Hospital, Mass. General, and Harvard University measured levels of kallikrein (K), kallikreinogen (Kkg), kallikrein inhibitor (KI), and bradykinin (Bk) in 20 patients. Their results suggest that: (1) Kkg is produced by the liver and its measurement is a sensitive index of liver function; (2) plasma bradykinin appears to have no direct etiologic role either in the hepatorenal syndrome or in the cardiovascular disturbances of cirrhosis; (3) to the extent that inflammation is mediated by Bk, patients with depressed Kkg levels due to liver disease may be found to have an impaired inflammatory response owing to diminished generation of Bk from kininogen.

Aniline Hydroxylase Microassay Indicates Hepatic Effects of Ethanol

A radioactive assay suitable for the analysis of as little as 3 mg of wet tissue has been developed by C. S. Lieber and E. Rubin of the Departments of Pathology and Medicine, Mount Sinai School of Medicine. In six human biopsies, hepatic aniline hydroxylase activity ranged from 0.7-1.7 nMoles p-aminophenol formed per mg. protein in 15 min., compared to



Dr. Charles S. Lieber

2.2-3.5 in rats. In baboons the activity was intermediate between rats and man. Chronic ethanol ingestion consistently increased the activity both in rats and baboons. The data indicate that the microassay for aniline hydroxylase may be useful in studying the effects of alcohol consumption in human liver biopsy specimens.

Ethanol Produces Fatty Liver in Rhesus Monkeys

After 10 days rhesus monkeys forced diets containing 41% alcohol calories developed fatty livers by light microscopy, reported a team led by B. H. Ruebner of the National Center for Primate Biology, School of Veterinary Medicine, University of California at Davis. Substitution of ethanol by carbohydrates did not produce any of changes, suggesting that the fatty liver produced by ethanol is not due to lack of lipotropic factors or to dietary imbalance. A striking proliferation of the smooth endoplasmic reticulum was observed after administration of the carbohydrates but not after ethanol.

Membership Application

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

Name Degrees
Address Specialty
City Nature of Interest
..... In Alcoholism

Dues \$25 Enclosed Bill Me
(Dues include subscription to Physician's Alcohol Newsletter)

Scholarship Available for Rutgers Summer School

The A. E. Bennett Scholarship for Alcohol Studies, open to all interested physicians, including medical students, provides tuition and room and board for the Physicians' Institute of the Rutgers Summer School of Alcohol Studies, scheduled from June 25 to July 14. Applications are available from American Medical Society on Alcoholism, c/o Ruth Fox, M.D., 150 East 52nd Street, New York 10022, N.Y.

Pace Outlines Industry's Role in Alcoholism Recovery

"Alcoholism is a killer," Dr. Nicholas A. Pace of General Motors told labor and management leaders at the Alcoholism Recovery luncheon held in New York on November 3, 1971. The key to treatment, he told the audience, is "your understanding the problem and approaching the solution in an organized manner."

Alcoholism is not the first medical problem that depends on others outside the medical profession for solution, he said. Yellow fever was eliminated from the Canal Zone by the workers and the army engineers, not the medical men.

"Hook worm *could* be treated—but not even a \$250 million grant could eradicate it as a health hazard in the South. It wasn't until the economic situation improved and the worker could *buy shoes* for his children—that it was eradicated.

"Labor and management were responsible for improving the economic situation and indirectly eliminating a disease that we physicians could not make a dent in," said Dr. Pace.

Calling on labor and management to help tackle the problem of alcohol, Dr. Pace said that they were in the unique position of having both the carrot (job with its security) and the stick (the threat of job loss) to motivate the employee. The private physician has no such levers.

He summarized three positive steps that should be taken to establish a company alcoholism rehabilitation program.

1. Establish and publicize to labor and management a definite policy, which states that alcoholism is not a moral condition and should be treated medically.

2. Educate and train supervisors to detect alcoholism early by defining it in simple terms, such as an individual whose alcohol consumption is interfering with his work and normal behavior.

3. Develop a liaison between local treatment centers with the company medical department.

Also at the luncheon Mr. James M. Roche, then Chairman of General Motors, stressed his company's attempts to identify the alcoholic employee as early as possible and to provide him the opportunity to obtain the necessary help. The insurance program has for some time provided hospital and medical expense benefits for alcoholism to both hourly and salaried employees in facilities which qualify under the program. GM has also established a company-wide alcoholic recovery program. "The employer with union assistance and backing is in a unique position to motivate the alcoholic individual to seek help," he said. "The employer can present the employee with an ultimatum: Either seek help or seek employment somewhere else." Such a position, though difficult to take, can prevent many tragedies, as long as it is administered in a humanitarian way and as long as the recovered alcoholic is accepted without prejudice. Dr. S. Steiner, GM's Medical Director, will administer the policy.

Physicians' High Suicide Rate Linked to Alcohol

More physicians die in the United States by suicide than by automobile accidents, plane crashes, drownings, and homicide combined. The physicians' suicide rate is double the suicide rate for all white Americans. Dr. Mathew Ross, Professor of Psychiatry at the University of Rhode Island, reported on the problem, using cross-cultural psycho-social data from Europe, North America, America, Australia, and New Zealand, at the fifth World Congress of Psychiatry held in Mexico City.

Alcohol plays a large role in these suicides, said Dr. Ross. Among physician suicides alcoholism was associated with 40% and drug abuse with 20%. A high coincidence of psychiatric morbidity, alcoholism, and drug addiction was found among physicians who committed suicide, with depression a very frequent precursor. Depressed doctors, fearing further loss of self-esteem, may compound their problems by self-medication.

Greater emphasis should be placed on preadmission screening of medical students for mental health, and more efficient student health services should be maintained. Also considered necessary were higher standards in teaching psychiatry at both undergraduate and postgraduate levels and improved liaison between psychiatrists and members of other branches of medicine. (*Medical Tribune*, Feb. 2, 1972, pp. 1, 17)

Report To Congress Calls Alcohol Nation's "Most Abused Drug"

"Alcohol is the most abused drug in the United States," a government task force reported to the Congress in a 121-page study. The document, the first of three special reports on alcohol and health, draws a detailed portrait of American drinking habits and asserts that at least 9 million Americans are alcohol abusers and alcoholics.

Chairman of the 11-member task force was Morris E. Chafetz, M.D., Director of the National Institute on Alcohol Abuse and Alcoholism.

The report covers ethanol, the basic substance in alcoholic beverages; the extent and patterns of use and abuse of alcohol; alcohol-related illnesses; theories about the causes of alcoholism; treatment of alcoholism; the legal status of intoxication and alcoholism; and research needs and future directions.

The report, which costs \$1.50, is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 1724-0193.

MEETINGS

APRIL 11, 1972—3rd Annual Medical and Scientific Session, NCA, on "Alcohol and the Central Nervous System," Kansas City, Mo.

APRIL 20-22—Third International Symposium on Psychomedicine of Traffic, Osijek, Yugoslavia.

MAY 30-31—Conference on Medical, Human and Related Factors Causing Traffic Accidents Including Alcohol and other Drugs, Bonaventure Hotel, Montreal, Canada.

JUNE 1-2—2nd Annual Alcoholism Conference of NIAAA. "Psychological and Social Factors in Drinking," first day, "Treatment Approaches and Treatment Evaluation," second day, Washington,

D.C., Washington Hilton Hotel, Nathan Rosenberg, Ph.D., Coordinator.

JUNE 5-10—18th International Institute on the Prevention and Treatment of Alcoholism, Seville, Spain.

AUGUST 3-6—Annual Meeting, International Doctors in AA, Hotel Stanley, Estes Park, Colorado (near Denver). Information from IDAA, 1950 Volney Road, Youngstown, Ohio 44511.

SEPTEMBER 4-9—30th International Congress on Alcoholism and Drug Dependence, Amsterdam, Netherlands. Information on international meetings from International Council on Alcohol and Addictions, Case Postale 140, 10001 Lausanne, Switzerland.

RESEARCH and REVIEW

Alcoholics Prone to Skin Diseases

More than ¾ of the 355 alcoholic patients admitted to Brookside Clinic in Toronto over a period of 2 years had some kind of skin disease, report M. Rosset, M.D., and G. Oki, M. Sci. Nearly half (44%) of the 307 men had one or more such conditions, compared to 1/3 of the 48 women. Both the men and women with skin diseases were older than those without discernible conditions.

Although a total of 34 different conditions were found, most of them probably have little clinical or statistical significance. No cases of pellagra were found, probably because the sample was generally well nourished and had little exposure to sunshine. Although there were some cases of tongue and buccal mucosa involvement, there were no changes described in pellagra or reported as "typical lingual syndrome."

In reviewing the 11 most common skin conditions, the authors note a high rate of acne rosacea (20 patients). Alcohol is considered a precipitating factor in the etiology of this condition. However, the incidence of acne vulgaris was not high (6 patients).

The incidence of seborrheic dermatitis (26 cases) was surprisingly high, twice as frequent as in a group of nondermatologic patients. Excessive perspiration, common to these alcoholics, aggravates this condition.

Some of the skin conditions might be attributed to poor personal hygiene (seborrhea capitis); others (leukoplakia) to heavy smoking, common among alcoholics.

No definite pattern in the entire group or in any skin condition could be established. (*Quarterly Journal of Studies on Alcohol*, Vol. 32, No. 4, December 1971, pp. 1017-24.)

Criteria for Diagnosing Alcoholic Hepatitis

The presence of Mallory material, an acute inflammatory cell exudate, and central hyaline sclerosis are the most important histological criteria for diagnosing alcoholic hepatitis, report L. D. Jewell, M.D., A. Medline, M.D., and N. M. Medline, M.D. from the Department of Pathology, Toronto (Ontario) Western Hospital and St. Michael's Hospital. Clinical and pathological data from four cases of fatal non-cirrhotic alcoholic hepatitis were analyzed. The patients were relatively young (35-45), but had a long history of excessive alcohol intake. The disease had an acute onset which progressed to death from hepatic and renal failure.

At autopsy the livers were enlarged but non-cirrhotic. The authors suggest further investigation into the nature of Mallory material and its possible pathogenic role in the development of both acute inflammation and perhaps of Laennec's cirrhosis. (*C.M.A. Journal*, Vol. 105, October 9, 1971, pp. 711-17.)

Alcohol Impairs Judgment on Traffic Signals

Even moderate blood alcohol levels (.05% to .10%) significantly impair the performance of a simple driving task—responding to a traffic signal light. The results of a study, reported by Everett M. Lewis, Jr. and Kiriako Sarlanis of the Injury Control Research Laboratory of the U.S. Public Health Service, also showed that performance differed as a function of ascending or descending blood alcohol levels. The descending alcohol session showed a marked reduction in total errors; however, even with that improvement, the subjects' judgment had not returned to normal. ("The Effects of Alcohol on Decision-Making with Respect to Traffic Signals," ICRL-RR-68-4, available from Superintendent of Documents, Washington, D.C. 20402, 25¢.)

Patient Benefits When Loved One Administers Disulfuram

When disulfuram is administered by a family member or close friend, the results may be more positive than when the patient takes the drug himself, believes George Nicklin, M.D., Clinical Associate Professor of Psychiatry, NYU. This method assures the patient of daily dosage, offers a check system, and provides an affectionate interchange between the patient and another person. In three of four cases discussed, the method was successful; and in the fourth, the wife of the alcoholic was totally uncooperative. (*Nassau County Psychiatric Society Newsletter*)

Follow-Up on Swedish Alcoholics

Five years after seeking treatment at Karolinska Hospital in Stockholm, 28% of 200 alcoholic men have freed themselves of their alcoholism, 20% still have an alcohol problem, and 30% have become chronically ill. The remaining 22% died.

Dr. Gunnar A. R. Lundquist reported these findings to the annual meeting of the Swedish Medical Society. He said that unfavorable influences on the course of the disease are onset of regular drinking before the age of 18, alcoholic parents, personality disorders before drinking, and lack of professional training. (*Medical Tribune*, Feb. 2, 1972, p. 2)

Alcoholics Risk Hypertension and Congestive Heart Failure

Alcoholics run a greater risk of suffering from a slowly deteriorating heart disease rather than heart attack which is sudden, and almost always fatal, Henry B. Murphree, Ph.D., told an international seminar on alcoholism held in New Jersey in November. While the results are different, both originate in blood vessel diseases.

Dr. Murphree, a professor of pharmacology and psychiatry at Rutgers Medical School, said that prolonged heavy drinking may contribute to hypertension, and can also cause degeneration of the muscles inside the heart. Unless the disease is treated, congestive heart failure may result.

While alcoholics are prone to hypertension, Dr. Murphree said that research at the medical school reveals they are "resistant" to atherosclerosis, which can result in heart attack. He added that the cardiovascular disease that can result in congestive heart failure persists even after the alcoholic has stopped drinking, because active alcoholics rarely see their doctors except in emergencies and as a result hypertension goes untreated.

The seminar, which was attended by more than 200 family physicians, psychiatrists, and other health professionals, was sponsored by the New Jersey Academy of Family Physicians and the Academy of Medicine of New Jersey to bring recent advances in the management and treatment of alcoholics to the membership.

AMSA-Region VIII Hears Reports on Colorado Services

Two thousand alcoholics have been identified by the clinics of the Alcohol Treatment Program for Grand Junction, Colorado (area pop. 35,000 adults), Dr. Joseph Lehmkuhle and Dr. William Davis reported to a meeting of AMSA-Region 8 held in Denver on October 17, 1971. In other area services, NCA operates a 24-hour answering service and an educational and referral service, and 70% of the alcoholics are being treated under Medicaid. Two AA meetings a week are held at a VA Hospital, and a halfway house is also in operation.

Recently, said Dr. Lehmkuhle, liver biopsies have been done routinely on every alcoholic patient. Liver Scan Flow Studies have been done after the eighth day, and routine blood alcohols are taken at the time of admission. Dr. Lehmkuhle is preparing a report on the findings of this study.

The meeting was chaired by Richard L. Condé, M.D.

REPORTS FROM NIAAA WORKSHOP ON ALCOHOLIC BLACKOUT

(Continued from page 1)

A Dissociated Personality Described

"Nature's rarest experiment"—a dissociated personality—was described in a case report by Arnold M. Ludwig, M.D., of the Department of Psychiatry, University of Kentucky Medical Center. This 28-year-old patient had four distinct personalities, each of which would take over under different emotional circumstances. Jonathan, the "index personality," was "unaware" of the existence of the others, although they all knew about him.

Memory and Mental Illness

Dr. George Henry, also of the University of Kentucky, described cases of manic depressive disease in which patients in the manic state had no recollection of an intervening day of depression.

Dr. Peter Steinglass of NIAA showed a videotape of an alcoholic patient, who during intoxication brought up usually suppressed emotionally laden material which he could not remember next day.

Non-Alcoholic Blackouts

Dr. David Drachman of Northwestern University Medical School described an experience of Hughlings Jackson, who, during a temporal lobe seizure made a complete neurological examination of a patient and inscribed perfect notes, but had no recollection of the incident. He also discussed the memory defect in hippocampal lesions, citing data to support the thesis that an intermediate storage exists in the hippocampus. Patients with hippocampal lesions (frequently induced by the transnasal portal of entry of herpes simplex encephalitis) can play long sonatas, but minutes later, cannot even recall playing the piano. After a game, football players have been known to fly to another city with no recollection of their actions. Thus both psychological and physical analogues to alcoholic blackouts exist.

Blood Alcohol Level Affects Blackout

Dr. Nancy Mello of NIAAA tested short-term memory with EEG monitoring in alcoholic patients before, during, and after intoxication. Her data suggest that there could be a critical blood alcohol level for the development of blackout. Behavioral tolerance was confirmed by these experiments: those patients with tolerance could perform well under high doses of alcohol with or without blackout. This finding is significant in relation to the interlock devices suggested to prevent drivers from operating cars with high blood alcohol levels.

Memory and Mental Function

Short-term memory, tested by Peter Nathan, Ph.D., of the Rutgers Center for Alcohol Studies, was uniformly impaired during drinking periods as opposed to dry periods in gamma alcoholics with long histories of blackout. Ben Morgan Jones, Ph.D., of the University of Oklahoma, found memory less good on the rising slope of the alcohol absorption curve than on the descending limb, at the same blood alcohol level. Donald Overton, Ph.D., of Temple University in Philadelphia, was able to demonstrate drug discrimination and "state-dependent learning" in rats given very high doses of phenobarbital, other drugs, and alcohol. With proper dosages, alcohol could be substituted for phenobarbital.

Korsakoff's Syndrome

Nelson Butters, Ph.D., of the Psychology Service of the VA Hospital in Boston, in extensive studies of the memory disturbance in Korsakoff's psychosis, found long-term memory in these patients normal as compared to normals and alcoholic non-Korsakoff patients. The defect of perseveration was the most prominent

one, and the patient would give the same wrong answer to a question six or seven times. Confabulation was not seen after clearing of the acute Wernicke stage. By tests of acoustic, sound, and semantic cues, as well as visual cues without semantic meaning (diagrams generated by a computer), Dr. Butters demonstrated that the short-term memory defect in Korsakoff's psychosis was one of failure to encode semantically. He postulated that blackout periods may be precursors of Korsakoff's syndrome.

Other Reports

• Dr. Wayne Wickelgren of the University of Oregon evolved a theory of memory storage with mathematical correlates, demonstrating the decay of storage as a function of the square root of time. • Dr. Ernest Noble of the University of California at Davis, referring to his radioactive leucine experiments (see PAN, Vol. 6, No. 4), suggested that, since brain protein synthesis is interrupted by alcohol consumption, this effect might mediate the memory loss in blackout. • Violette Sutherland, University of California Medical Center in San Francisco, called attention to regional differences in cerebral metabolism as a clue for localizing the anatomical site of action of memory. • Dr. David Drachman suggested chemical regionalization, urging studies of differential function of various neurotransmitters in memory functions.

The workshop on blackouts was the first of a projected series of quarterly workshops, which are limited to invited specialists. The next projected workshop is expected to explore the interaction of married couples in the face of alcoholism. Albert A. Pawlowski, Ph.D. of NIAAA directs the workshops.

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