

PHYSICIAN'S ALCOHOL NEWSLETTER

Duplicate
PUBLISHED BY
AMERICAN MEDICAL SOCIETY
ON ALCOHOLISM, Inc.
120 Central Park So.
New York, N. Y. 10019

Volume 3

No. 3

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GOLDBERG EYES ALCOHOLISM FOR MEDICAL SOCIETY

In addressing the first meeting of the American Medical Society on Alcoholism in Washington, D.C., Dr. Leonard Goldberg, professor of alcohol pharmacology at Sweden's Karolinska Institute, outlined the broad range and implications of alcohol research in that country. The professor, demonstrated an unusual teaching ability by his breadth of vision and by his capacity for clearcut explanations and engaging humor. Dr. Goldberg, describing his work as neuropharmacology, discovered that a form of horizontal nystagmus, with the fast component in one direction, occurs after drinking while the blood alcohol curve goes up and that this trend is reversed during withdrawal. The latter phase is very prolonged. This nystagmus can be interrupted by vomiting or by the effects of tranquilizers. It differs from gaze nystagmus and from the roving motions of the eye, placing the action of alcohol in the reticular formation of the brain. No other animal but man exhibits this phenomenon after alcohol ingestion and no other chemical tested produces it. Other studies with a platform-like device can measure yet another physiologic response to alcohol-body sway. The measurement, translated

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PSYCHIATRIC FOCI AT CONGRESS

Studies presented at the 28th International Congress on Alcohol & Alcoholism touched many aspects of the approach of the therapist, personality of the alcoholic, treatment and its results.

That alcoholism has not been totally accepted in regular psychiatric practice, was demonstrated in Durham, N. C. where it was found that psychiatric patients labelled 'excessive drinkers' were treated like other patients, whereas similar patients labelled 'alcoholics' were more often refused treatment or prejudicially treated. (D. G. Mayfield, Vets. Adm. Hosp.). According to another study physicians with low degrees of authoritarianism treat

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INTERNATIONAL CONGRESS SHOWS POLITICAL INTEREST

More than 200 scientists and other professionals from all over the world, including many eastern European nations, exchanged research and treatment findings at the 28th International Congress on Alcohol and Alcoholism which convened last month in Washington, D.C. Convention chairman, David J. Pittmann,

Ph.D., said allocation of governmental and private resources for combatting alcoholism and alcohol-related problems throughout the world has been "meager." But he pointed out that interest in alcoholism in the United States is increasing and is receiving more government support as evidence by the passage of the recent "Alcoholism Rehabilitation Act," supported overwhelmingly by both parties. To illustrate how far behind this country is compared with others, he pointed out that Stockholm spends \$7,000,000 a year on alcoholism service while the total United States federal budget for it is only \$11,000,000 annually.

The role of state governments in tackling alcoholism was exemplified by Iowa Governor Harold E. Hughes' talk to the Congress. Governor Hughes was wary of statistics. For an example, he said experts say there are 50,000 alcoholics in Iowa today when they claimed the same number ten years ago. He said that total mobilization is needed to fight the problem and, referring to the International Congress said, "Now we are getting somewhere."

Governor Hughes discussed The Iowa Comprehensive Alcoholism Project, a state agency funded by federal, state and local agencies. Its function is not limited to providing information or clinical services, but is mainly directed to improving the abilities of existing agencies to cope more successfully with alcoholism and its concomitant problems. He claims that large state institutional programs are undesirable and that local resources must be developed. The trained staff of the 9 strategically located centers of the state project help with the patient's immediate needs—quick medical help, a place to sleep, food for a needy family, minimal tools for a man to get a job. Community groups have pitched in to provide these. Governor Hughes states proudly, "Today, alco-

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AA DOCTORS CONVENE

The 20th annual meeting of International Doctors in Alcoholics Anonymous was held recently in Atlanta, Georgia. Members include dentists as well as MDs. Guest speaker, Dr. Vernelle Fox, medical director of the Georgian Clinic for Alcoholics, told the professional members, "Alcoholics recover when they become addicted to people instead of to alcohol, sedatives, tranquilizers, or any other chemicals." She emphasized the dangers of cross-addiction among alcoholics because many sedative and psychotropic agents once thought non-addictive are now presenting grave addiction and withdrawal problems for some alcoholics at the Georgian Clinic.

The unique group also learned of a Roosevelt Hospital research team's follow-up study of alcoholic physicians and nurses. International Doctors in A.A. was formed by the late Dr. C. P. of Cape Vincent, New York who organized the first meeting of 25 doctors in 1949. These annual professional meetings in different parts of North America are supplemental to the regular A.A. life members lead in their home towns "just like any other A.A. member, whether he is an unemployed laborer, a movie star, or a professional . . . In A.A., we are all alike in sharing our experience, strength and hope with each other, there are no experts or special categories of members." But, A.A. meetings restricted to one profession have never proved successful in the 33-year history of A.A. unless the alcoholic also attends ordinary, every-day meetings with alcoholics from other walks of life. For further information about International Doctors in A.A., write: Information Secretary, 1950 Volney Road, Youngstown, Ohio 44511. The 1969 meeting is to be held in Morris-town, N. J.

Editorial

"THE CONGRESS"

The twenty-eighth international congress on alcohol and alcoholism, a momentous bringing together of experts from all over the world, has come and gone. The meaning of this exercise as an event in man's progress towards the elimination of this knotty problem has yet to be fully realized. Several things were clear. Many dedicated people throughout the world are tackling the problems of alcoholism. These include scientists in the fields of physiology, medicine, and psychiatry; sociologists and economists; lawyers and clergy. Much of the research in treating alcoholism is of the 'soft' variety, but increasingly, genuine steps towards modern research in methods and concepts are bringing light to the problems. Perhaps the most important phase of the conference was the interplay between the delegates from morning till dark around the great coffee table or in the corridors.

One controversial issue was tackled by Dr. Morris Chafetz of Harvard U. School of Medicine, who warned against political misuse of any power to confine an alcoholic against his will. Whereas we took issue with him because of the real problem of obtaining treatment rather than incarceration of the acutely ill alcoholic (and a visit to the treatment facilities at Occaquam where such treatment is now being done reinforces the knowledge of its correctness) a re-reading of his paper shows the areas of agreement. Yes — the alcoholic when acutely ill should be hospitalized and not jailed — but this hospitalization should carefully ringed with safeguards of the individual's eventual freedom.

Unfortunately, space limitations have restricted our more complete reportage of the vast number of excellent papers. To those unmentioned — our regrets. To those mentioned too briefly, the same. It is hoped that the full proceedings will be available this year for those whose interests require further detail.

NEW YORK APPOINTS DR. CONWELL

Dr. Donald Conwell, Assistant Commissioner of Chronic and Preventable Diseases of New York City's Department of Health, was recently assigned responsibility for coordinating those city services handling alcoholism problems. He is charged, also, with the related task of encouraging better inter-agency rapport. Assisting him in this work is John H. Williams, Director of Alcoholism Programs.

EPIDEMIOLOGY OF ALCOHOLISM: A.A.

Dr. John L. Norris, Chairman of the A.A.'s General Service Board, presented findings of a 1968 summer survey, by that group, of 11,355 American and Canadian alcoholics, during the September convention of the 28th International Congress on Alcohol and Alcoholism. Of the 60.3% of respondents who were drink-free for from one year to more than 20 years, 34.9% were dry up to five years; 13.3% were dry from six to ten years; 6.5% from 11 to 15 years and 3.6% for 15 to 20 years. Two per cent were drink-free for more than 20 years.

Influencing 54.8% of initial A.A. visits were other A.A. members while families influenced 34% and physicians, 16.2%. That more doctors, as part of their treatment, are now referring patients to A.A. is evidenced by the fact that of respondents sober 20 years or more, 12% were referred to A.A. by MDs. And, of recent A.A. referrals, 19% were made by physicians. Other inducers included A.A. literature, clergymen, employers, all communications media, friends, lawyers, psychologists, counseling agencies, hospitals and the National Council on Alcoholism.

The data gathered appears significant evidence that Alcoholics Anonymous meetings are extremely useful in helping alcoholics give up their drinking. It also points to the diverse influences which stimulate the alcoholic to attend his first A.A. meeting.

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JELLINEK AWARD PRESENTED

The first Jellinek Memorial Award, commemorating the late Dr. E. M. Jellinek, a biometrician and scholar in the field of alcoholism, was presented by the 28th International Congress on Alcohol and Alcoholism to Dr. Jean-Pierre von Wartburg. The young physician-biochemist is research investigator at the Medical Chemical Institute of the University of Bern in Switzerland. Prof. Mark Keller of the Rutgers University Center of Alcohol Studies presented the award—\$1,000 and a bronze bust of Dr. Jellinek.

The work for which the Swiss investigator was honored includes studies on the liver enzyme alcohol dehydrogenase which normally oxidizes 100 mg. of alcohol per Kg of body weight an hour. Dr. von Wartburg's recent work resulted in the isolation of an atypical liver enzyme which *in vitro* oxidized alcohol five to six times faster. In one subject, carrier of atypical enzyme, alcohol was oxidized at the rate of 141 mg. an hour. The difference between the action of the abnormal enzyme *in vitro* and *in vivo* may be explained by the possible presence of another enzyme that retards oxidation. Dr. von Wartburg stated that children who suffer from glycogen or carbohydrate storage disease oxidize 460 mg. of alcohol per Kg. of body weight an hour. Such findings have led him and his associates to suspect the atypical liver enzyme may be meaningful in alcoholism. Thus far these investigators have found three protein constituents of the atypical enzyme. Current work includes determining if all three isoenzymes are abnormal, or whether only one or two are. The pike, whose liver has the same amount of alcohol dehydrogenase as human livers, is used in these studies.

Dr. von Wartburg is also trying to find out if the abnormal enzyme occurs more often among alcoholics than in the normal population. Eventually, he hopes to answer some of the questions this research poses such as: Do people with the atypical enzyme sober up more quickly and can they therefore drink a good deal more?

Dr. Jellinek is perhaps best known for his classification of American alcoholics, detailed in his book *The Disease Concept of Alcoholism*. Prof. Keller, a long-time associate of Dr. Jellinek and editor of the *Quarterly Journal of Studies on Alcohol* published at Rutgers, headed the 1968 Jellinek Award Committee. Other members included B. Brinkley Smithers; H. David Archibald, Addiction Research Foundation, Canada; Dr. David Lester, Rutgers Center of Alcohol Studies; Dr. Harold Kalant,

(Continued on page 5, col. 2)

BOOKS

Understanding Alcoholism: For the Patient, the Family, and the Employer by The Christopher D. Smithers Foundation, Inc., 41 E. 57th St., New York 10022. 1968, 257pp., \$6.95.

This book prepared to enlighten the public about alcoholism, offers sound, effective help to those afflicted as well as to those whose lives are touched by its tragedy in numerous and diverse ways. It is largely derived from a series of pamphlets on alcoholism issued by the Smithers Foundation for laymen over the years. Some of the included topics are: types of alcoholics; steps toward achieving permanent sobriety; the fallacy of "controlled drinking;" the impact of alcoholism on the family; significant areas of alcohol education, and the law and the alcoholic. The only working foundation in the United States principally engaged in fighting alcoholism as a disease is the Smithers Foundation a central agency for collecting, classifying, and distributing information. It is neither wet nor dry, but solely interested in helping establish alcoholism as a treatable disease and has given nearly three million dollars for education, research and treatment to that end.

A Dictionary of Words about Alcohol by Mark Keller and Mairi McCormick, 7.50 cloth bound. Order from: Publications Division, Rutgers Center of Alcohol Studies, Rutgers University, New Brunswick, N. J. 08903. Authoritative definitions of words about alcohol and its problems from A.A. to zymurgy are included.

Alcoholism and Psychiatric Emergency Services from *Amer. J. Psychiat.*, 124:12, (June) 1968, 40 pp. A reprint containing seven pertinent articles.

Clinical Research in Alcoholism edited by Jonathan O. Cole, M.D., The American Psychiatric Association, Washington, D.C., 1968, 178 pp. Includes chapters on prevention trends, prognostic factors, group therapy, gambling and alcohol and related fatty liver, cirrhosis and metabolic effects.

JOBS AVAILABLE

(Continued from page 2, col. 2)

Psychologists**			
Psychologist	GS-13	\$14,888	\$19,209
Psychologist	GS-14	16,946	22,031

Interested physicians* should write to Dr. Paul Travis, Director, Rehabilitation Center for Alcoholics, Occoquan, Virginia, 22125 or call Area Code 703, 90-1544, Lorton, Va. Psychologists** should write to Dr. James A. Vanderpool, Chief of Clinical Services of the same institution, or call Area Code 703, 690-1547.

RESEARCH AND REVIEW

New York City physicians, Charles S. Lieber and Emanuel Rubín, recently presented (*Gastroenterology*, Vol. 54, No. 9, pp 642-646) a study of ethanol as a many-faceted hepatotoxin particularly focusing on its involvement in drug detoxification processes. Their prior investigations have demonstrated hepatic changes due to alcohol independent of nutritional deficiencies. Because ethanol-produced hepatic injury is dose-related, reproducible in man and animals and characterized by fatty changes and necrosis, it should be classed among those hepatotoxins injuring liver by direct action on hepatocytes, not among those acting indirectly by hypersensitivity. One such agent is carbon tetrachloride. But, though both produce hepatic fat accumulation, associated lesions differ markedly. Functionally, CCl₄ induces hypolipemia while a large ethanol intake does the opposite.

The difficulty in classifying ethanol in one or another category of hepatotoxins is evident when it is compared with phenobarbital, which causes proliferation of smooth endoplasmic reticulum (SER) with increased activity of drug-detoxifying enzymes, and with CCl₄ which increases the SER but reduces drug-detoxification. Ethanol stimulates proliferation of SER and induces an increase in drug metabolizing enzymes in the liver. The latter could logically explain why alcoholics, not under immediate ethanol effects, often exhibit an unusual tolerance to sedatives and anesthetics. Further, Lieber's theory that alcohol acts as a hydrogen donor could explain many of its effects. While other changes can be attributed to the ethanol metabolites — acetate and acetaldehyde.

AWARD PRESENTED

(Continued from page 2, col. 3)

University of Toronto and Dr. J. H. Quastel, University of British Columbia. The Committee pointed out that since 1957 Dr. von Wartburg has published on various aspects of the biology of alcohol. In the U.S., his latest article appeared in *Psychosomatic Medicine* (vol. 28, p. 405, 1966). The Committee stressed that although it is unlikely that biological factors will ever prove all-important to the exclusion of man's socio-cultural relations as a cause of alcoholism, if such factors can be demonstrated, "they will provide a stronger basis for the disease concept of alcoholism, and will increase the hope of finding means of preventing or aborting the addictive process."



R. BRINKLEY SMITHERS

R. Brinkley Smithers, chairman of the Alcoholism Committee of the Community Council of Greater New York, was chairman of the Patronage Committee of the 28th International Congress on Alcohol and Alcoholism held in Washington, D.C., in September. The meeting was a function of the International Council on Alcohol, and Alcoholism, of which Mr. Smithers is vice president and administrator. Mr. Smithers, an international authority on alcoholism, is president of the Christopher D. Smithers Foundation.

MEETINGS

TUES. NOV. 26, 1968, 8:30 p.m.—American Medical Society on Alcoholism, Regional Meeting, Region II *Isoquinolones Produced by Alcohol*. Dr. G. Cohen, Asst. Prof. Biochemistry, Columbia U. At the Roosevelt Hospital 59th and 9th Ave., Medical Auditorium. MON. APRIL 14, 1969—Fort Worth, Tex., American Med. Society on Alcoholism, Regional Meeting Region VII in conjunction with Tarrant County Medical Society. Speaker to be announced.

APRIL 15-20, 1969—National Council on Alcoholism Meeting, Fort Worth, Texas, Green Oaks Motel.

SEPT. 14-18, 1968—NAAAP 20th annual meeting. Bayshore Inn, Vancouver, Canada.

IN MEMORIAM

Dr. Richard Buckley, Hoboken, New York, died in August of 1968. Member in good standing—American Medical Society on Alcoholism.

For this issue of PAN, Mrs. Helen Borel acted as assistant editor.

Editorial

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PHYSIOLOGY PAPERS PRESENTED

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led in the brain for determination of metabolic pathways of serotonin. Disulfuram was found to block aldehyde dehydrogenase. Also serotonin, of which 5HTP is a precursor was increased after alcohol.

EEG

EEG effects were studied at Rutgers U., (Greenberg, L. A. et al) who found that high congener beverages caused more prolonged drowsiness. Skala, J. of Charles U., Prague, Czechoslovakia found that sleep deprivation of 127 hours was more likely to produce slight Korsakoff syndrome than delirant states in alcoholics. G. Wahlstrom of the U. of Uppsala, Sweden, used the EEG to measure CNS sensitivity to hexobarbital. After prolonged pretreatment with hexobarbital, the sensitivity decreased. This was also true after prolonged pretreatment with alcohol. However, in the latter case a different temporal pattern of increase in threshold after withdrawal indicated a possible fundamental pharmacological difference in the abstinence phase.

H. E. Himwich of the Thudicum Research Laboratory, Galesburg, Ill., found ethanol could block blood pressure response to noxious stimuli more easily than it could stop EEG arousal. R. E. Docter of San Fernando Valley State College, Northridge, Cal., found that moderate doses of alcohol given alcoholics produced not drowsiness but apparent excitation according to EEG and other data. He concluded that alcohol has stimulant and sedative properties depending on the dose. Optokinetic responses, measured by Y. Mizoi of Kobe U., Kobe, Japan, were sensitive enough to provide a medicolegal test of alcohol response.

Neurological Papers

Other neurological investigations showed no difference in pain tolerance between alcoholics and non-alcoholics (L. D. Boutin, St. Peter, Minn.) Alcohol did not change responses to aversive visual stimuli (Z. H. Garfield, Temple U., Phil.) but did have a qualified effect in making subjects underestimate time (P. Stokes, Cornell U., New York). Alcohol could not be ascribed a direct role in the morbidity and mortality due to lung disease in alcoholic smokers (J. G. Rankin, U. Melbourne, Australia) but alcoholism was associated with greater syphilis rate and more carbon monoxide in the blood (F. Portheine, Nordhorn, West Germany).

Pathology

Alcoholism carried a greater risk of

YOUTHFUL DRINKERS SEEN IN TROUBLE

Accumulating evidence of consistent personal and social factors associated with the youthful problem drinker and the young "accelerated" alcoholic make it possible to identify youth headed for alcoholism.

The sometimes parallel, sometimes supplemental findings were presented by Capt. Albert E. Reister of Wilford Hall USAF Hospital at Lackland Air Force Base, Texas; by Robert A. Zuckerman of Michigan State University; and by Dr. C. M. Rosenberg of Rozelle, Australia. The profile of the youth who is at high risk of developing into an alcoholic includes the following features:

(1) Early environmental failure, resulting in lack of a sense of self-worth in the family, characterized by (a) economic deprivation, (b) paternal alcoholism resulting in parental discord, (c) one parent absent before subject's 15th birthday, and (d) a punitive, unfair, disinterested father.

(2) Hostility toward the father.

(3) A close relationship with the mother.

(4) Unhappy, angry cynical and derogatory in views of intimate relationships.

(5) Limited academic and job aspirations.

(6) The feeling that things never turn out right.

(7) A self-sufficient facade.

(8) Excessive dependency, withdrawal or hostility.

(9) Severe personality disorder.

(10) High levels of anxiety and neurosis, and occasionally schizophrenia.

(11) Abuse of beer.

(12) Use of alcohol to relieve loneliness, depression and frustration.

(13) Impulsive, thrill-seeking.

(14) Use of drugs.

(15) One or more suicide attempts.

From Dr. Rosenberg's work comes the hypothesis that the earlier the onset of problem drinking the faster the acceleration of the addictive process.

mortality in Norway, where 113% of the expected number of 1722 male patients followed up had died. Tuberculosis, carcinoma, cardiomyopathy, apoplexy and epilepsy were mainly responsible, the excess mortality ascribed to cirrhosis being comparatively small (P. Sundry, U. of Oslo, Norway). Of an alcoholic population which was 'natural' (untreated) after ten years, 36% were still actively alcoholic, 23% inactive, 18% were dead, 23% had moved (R. J. Gibbons, Addiction research foundation, Toronto.)

Reprints of the papers may be obtained from the authors or inquiry could be made at the NAAP.

ALCOHOLISM FOR MEDICAL SOCIETY

(Continued from page 1, col. 1)

into voltage and fed into a frequency analyzer, differentiates accurately between the effects of different tranquilizers. For example, chlordiazepoxide administered with alcohol decreases body sway. Surprisingly, accordingly to another series of experiments, a person can accurately reflect his own blood alcohol levels by self-estimation of the intensity of his moods.

Significantly, the concept of the alcohol-Antabuse phenomenon has recently been enlarged, from the older hypothesis of a delay in acetaldehyde degradation, to include the newly-discovered fact that Antabuse sensitizes CNS receptors to acetaldehyde effects. Thus, a small dose of alcohol will block receptor sites to the reaction making it possible to drink large amounts without as much hazards after ingestion of Antabuse. Pyrazole, a compound which decreases the alcohol metabolism rate, is being used in this area of research. Additionally, studies of alcohol tolerance by Dr. Goldberg demonstrate that alcoholics need larger amounts of alcohol to increase alcohol blood levels and to develop impairment of function. For the same impairment of function as in a moderate drinker, the alcoholic may have to drink 30 times as much. One interesting question is posed by these results - Why don't alcoholics exhibit more damage than they do?

Dr. Goldberg showed how insights into the problem of alcoholism could be provided by social phenomena. For instance, before going to sea, the 20 percent of Norway's young people who enter the merchant marine for one year are given a neurosis index which subsequently can be directly correlated to the incidence of alcoholism. And, remarkably, a 1963 strike in Sweden's alcohol monopoly, which abruptly stopped the country's liquor supply for three weeks, resulted in a decrease in suicides, a decrease in cases of drunkenness and a temporary decrease in admissions of alcoholics to institutions. Dr. Goldberg's further work shows that the moderate drinker's drinking is geared to his environment while that of the true alcoholic is geared to himself.

After a brief history of the organization was delivered by retiring president, Dr. A. Zentner, Dr. Ruth Fox was installed as the new president of the American Medical Society on Alcoholism. She outlined the Society's plans for regional divisions which will hold several meetings during the year in addition to the annual national meeting.

FOCI AT CONGRESS

(Continued from page 1, col. 1)

more alcoholic patients. According to the authors, (R. M. Gray, U. of Utah, Salt Lake City) authoritarianism is incongruent with the expectations of alcoholics and authoritarian doctors tend to avoid this type of role relationship. C. B. Truax of the U. of Arkansas, Fayetteville, Ark., was able to train non-professionals within a short period of time to function at the level of experienced. The work of F. Schual H. Salter, and M. G. Paley, of New York's Pilgrim State Hospital showed that distinct advantages accrued when patients helped each other. At this alcoholism service, group therapy is conducted exclusively by alcoholic patients. This helps the newer patients with their anxieties while bettering the morale of the older and improved patients who become involved with helping. The groups consist of 5 to 8 members without a therapist, although there is a large group follow-up discussion which, the staff's limited numbers can supervise.

Return to Society

After an alcoholic undergoes treatment, and begins to acquire the habit of abstinence, his old alcoholic companions and his own loneliness tend to lure him back to drinking. Few alcoholics can bear that psychosocial temptation without relapse, reports J. Vesel of Yugoslavia. O. Irgens-Jensen found loneliness itself in very isolated men living in north Norway was not combined with increased alcohol consumption. (Nat. Inst. Alc. Research, Oslo).

Positive rehabilitation measures used in Czechoslovakia says J. Skala, are aimed at developing the patient's constructive nature. In-hospital treatment is consistent, demanding and purposeful to enable the patient to bear ever greater stress in life. A. A. Lazarus of Temple University Medical School reports, equal attention must be given to stopping overt drinking behavior by broad spectrum behavioral treatment which also deals with guilt, and anxiety.

Treating the Family

The importance of understanding and treating the alcoholic's family was underscored by numerous reports to the Congress. A London study of the coping behavior of alcoholics' wives (Oxford J. F. Institute of Psychiatry) resulted in identification of five factors, "attack," "withdrawal within marriage," "protection," "acting out," and "safeguarding family interests," possibly important to the development and treatment of alcoholism. Further, the importance of cooperation between agencies and families of alcoholics was stressed by a Cincinnati study in which coopera-

tion between community agencies helped identify alcoholism in situations where it formerly went unnoticed. This led to greater skill in engaging and treating families with alcoholism problems. (P. Cohen, Family Service of the Cincinnati area). In this regard, J. A. Ewing of Chapel Hill stressed that approaches which involve significant other persons in the alcoholic's life are more promising than treating the patient alone. P. H. Esser of The Netherlands worked with alcoholics using "conjoint family therapy" with the assistance of an A. A. member who knows from experience that an alcoholic is an emotional prisoner of the disordered pattern of his family life and knows it is best to intervene at home where the life of an alcoholic breaks down. The visiting psychiatrist evaluates the home's emotional climate by participating and moving directly into the family life of the alcoholic and fulfilling the parent figure role providing them emotional support. He notes who wants what from whom and the family members learn to shift conflicts to the level of interpersonal processes. They learn to appreciate the scapegoat status of the alcoholic member who suffers most and is therefore compelled to continue his drinking behavior. The therapist helps family members replace sickness-inducing defenses with healthier ones. Results of this program with ten families so far have been promising.

Females Young and Old

A study from Warsaw revealed that the incidence of female alcoholism tends to increase as urbanization, industrialization and female employment increase. And G. J. Salzberger's study of alcoholism in the aged female at Pilgrim State Hospital, where about 60% of the geriatric patients took to drink once they began to feel the growing sense of isolation attending old age, showed that multiple factors, somatic as well as psychological, were part of the etiology. The family of the aged female alcoholic reacts with shock, and embarrassment, fears gossip and wishes to conceal mother's failing. Her drinking, explained as strictly for medicinal purposes, obscures the patient's needs for self-assurance, understanding, companionship, and a feeling of usefulness in her fading universe. These women are agitated and hallucinating during acute episodes, commonly claiming that animals are running across the ceiling making faces at them. Prompt control of the agitation is essential in the elderly, decrepit and in the rehabilitative period, drug therapy is combined with psychotherapy and environmental manipulation.

Children

One important area of interest cen-

ters on the children of alcoholic families. Warshaw's Rutkiewicz presented principles of organizing welfare for children of alcoholics because studies from many countries show that parental alcoholism spawns nearly half of all criminals, 2/3 of prostitutes, 2/5 of alcoholics, and 3/5 of the mentally retarded. Total rehabilitation of the alcoholic as well as treatment for his family must underlie efforts at salvaging his children. It may be necessary to provide foster care or institutionalization to free the child from his problem environment. Less extreme measures such as organization of afterschool and play activities, with provision of meals, clothing, money and health services for the child—plus a multi-faceted program designed to restore the alcoholic family to social viability—offer much more hope for these vulnerable children.

Treatment Aids Discussed

Many treatment aids discussed include disulfuram, which was found less effective for psychopathic patients by E. Negulici of Bucharest, but endorsed for a widespread informed use with alcoholics by R. W. McNichol, Arkansas State Hospital, Benton.

Conditioning therapy with apomorphine, (O. Kondas, Comenius U. Bratislava, Czechoslovakia) succinylcholine (J. Clancy, U. of Iowa, Iowa City) LSD 25 (A. A. Kurland, Spring Grove Hospital, Baltimore, Md., and F. G. Johnson Addiction Research Foundation, London Ont.) Alcoholics Anonymous (B. Leach, Roosevelt Hospital, N.Y.) T. Dancey, McGill U. of Montreal) and O. H. Mower, U. of Illinois), Psychodrama, (H. Wiener, N.Y.) Nicotinamide and adenine (R. Lecoq, St. Germain-en-Laye, France, and half-way houses (E. Tuominen, Helsinki, Finland.)

Results

B. Kissin, Downstate U. College of Medicine, Bklyn, who found different treatment methods more effective with different psychological and socioeconomic classes of alcoholics.

CONGRESS INTERESTED

(Continued from page 1, col. 3)

holics in Iowa willing to submit to help have a home — a coordinating agency that cares and will stick with them." Political parties in Iowa both have planks calling for rehabilitation services, which prompted the governor to say, "The agitation for adequate treatment and rehabilitation has now become a chorus that can be heard."

Presentations on psychiatric, bio chemical, physiological, adolescent and driver safety aspects of alcoholism were also given at the convention and some of them are highlighted here in other columns.

BOOKS

Understanding Alcoholism: For the Patient, the Family, and the Employer by The Christopher D. Smithers Foundation, Inc., 41 E. 57th St., New York 10022. 1968, 257pp., \$6.95.

This book prepared to enlighten the public about alcoholism, offers sound, effective help to those afflicted as well as to those whose lives are touched by its tragedy in numerous and diverse ways. It is largely derived from a series of pamphlets on alcoholism issued by the Smithers Foundation for laymen over the years. Some of the included topics are: types of alcoholics; steps toward achieving permanent sobriety; the fallacy of "controlled drinking;" the impact of alcoholism on the family; significant areas of alcohol education, and the law and the alcoholic. The only working foundation in the United States principally engaged in fighting alcoholism as a disease is the Smithers Foundation a central agency for collecting, classifying, and distributing information. It is neither wet nor dry, but solely interested in helping establish alcoholism as a treatable disease and has given nearly three million dollars for education, research and treatment to that end.

A Dictionary of Words about Alcohol by Mark Keller and Mairi McCormick, 7.50 cloth bound. Order from: Publications Division, Rutgers Center of Alcohol Studies, Rutgers University, New Brunswick, N. J. 08903. Authoritative definitions of words about alcohol and its problems from A.A. to zymurgy are included.

Alcoholism and Psychiatric Emergency Services from *Amer. J. Psychiat.*, 124:12, (June) 1968, 40 pp. A reprint containing seven pertinent articles.

Clinical Research in Alcoholism edited by Jonathan O. Cole, M.D., The American Psychiatric Association, Washington, D.C., 1968, 178 pp. Includes chapters on prevention trends, prognostic factors, group therapy, gambling and alcohol and related fatty liver, cirrhosis and metabolic effects.

JOBS AVAILABLE

(Continued from page 2, col. 2)

Psychologists***

Psychologist	GS-13	\$14,888	\$19,209
Psychologist	GS-14	16,946	22,031

Interested physicians* should write to Dr. Paul Travis, Director, Rehabilitation Center for Alcoholics, Occoquin, Virginia, 22125 or call Area Code 703, 90-1544, Lorton, Va. Psychologists** should write to Dr. James A. Vanderpool, Chief of Clinical Services of the same institution, or call Area Code 703, 690-1547.

RESEARCH AND REVIEW

New York City physicians, Charles S. Lieber and Emanuel Rubin, recently presented (*Gastroenterology*, Vol. 54, No. 9, pp 642-646) a study of ethanol as a many-faceted hepatotoxin particularly focusing on its involvement in drug detoxification processes. Their prior investigations have demonstrated hepatic changes due to alcohol independent of nutritional deficiencies. Because ethanol-produced hepatic injury is dose-related, reproducible in man and animals and characterized by fatty changes and necrosis, it should be classed among those hepatotoxins injuring liver by direct action on hepatocytes, not among those acting indirectly by hypersensitivity. One such agent is carbon tetrachloride. But, though both produce hepatic fat accumulation, associated lesions differ markedly. Functionally, CCl₄ induces hypolipemia while a large ethanol intake does the opposite.

The difficulty in classifying ethanol in one or another category of hepatotoxins is evident when it is compared with phenobarbital, which causes proliferation of smooth endoplasmic reticulum (SER) with increased activity of drug-detoxifying enzymes, and with CCl₄ which increases the SER but reduces drug-detoxification. Ethanol stimulates proliferation of SER and induces an increase in drug metabolizing enzymes in the liver. The latter could logically explain why alcoholics, not under immediate ethanol effects, often exhibit an unusual tolerance to sedatives and anesthetics. Further, Lieber's theory that alcohol acts as a hydrogen donor could explain many of its effects. While other changes can be attributed to the ethanol metabolites - acetate and acetaldehyde.

AWARD PRESENTED

(Continued from page 2, col. 3)

University of Toronto and Dr. J. H. Quastel, University of British Columbia. The Committee pointed out that since 1957 Dr. von Wartburg has published on various aspects of the biology of alcohol. In the U.S., his latest article appeared in *Psychosomatic Medicine* (vol. 28, p. 405, 1966). The Committee stressed that although it is unlikely that biological factors will ever prove all-important to the exclusion of man's socio-cultural relations as a cause of alcoholism, if such factors can be demonstrated, "they will provide a stronger basis for the disease concept of alcoholism, and will increase the hope of finding means of preventing or aborting the addictive process."



R. BRINKLEY SMITHERS

R. Brinkley Smithers, chairman of the Alcoholism Committee of the Community Council of Greater New York, was chairman of the Patronage Committee of the 28th International Congress on Alcohol and Alcoholism held in Washington, D.C., in September. The meeting was a function of the International Council on Alcohol, and Alcoholism, of which Mr. Smithers is vice president and administrator. Mr. Smithers, an international authority on alcoholism, is president of the Christopher D. Smithers Foundation.

MEETINGS

TUES. NOV. 26, 1968, 8:30 p.m.—American Medical Society on Alcoholism, Regional Meeting, Region II *Isoquinolones Produced by Alcohol*. Dr. G. Cohen, Asst. Prof. Biochemistry, Columbia U. At the Roosevelt Hospital 59th and 9th Ave., Medical Auditorium.
MON. APRIL 14, 1969—Fort Worth, Tex., American Med. Society on Alcoholism, Regional Meeting Region VII in conjunction with Tarrant County Medical Society. Speaker to be announced.

APRIL 15-20, 1969—National Council on Alcoholism Meeting, Fort Worth, Texas, Green Oaks Motel.

SEPT. 14-18, 1968—NAAAP 20th annual meeting. Bayshore Inn, Vancouver, Canada.

IN MEMORIAM

Dr. Richard Buckley, Hoboken, New York, died in August of 1968. Member in good standing—American Medical Society on Alcoholism.

For this issue of PAN, Mrs. Helen Borel acted as assistant editor.

PHYSIOLOGY AND PATHOLOGY STRESSED IN MEDICAL PHASE

Papers from Japan, Germany, Chile, Canada, Czechoslovakia and France demonstrate the geographic diversity of the many biochemical and physiological research reports presented at the International Conference on Alcohol and Alcoholism. Many phases of the activity of alcohol were investigated, and by many methods.

Hereditary Basis

Proponents of an hereditary basis for alcoholism, could be encouraged by the isolations of different isozymes of alcohol dehydrogenase by J. P. Wartburg and T. M. Schenker of Switzerland. Another genetically related investigation was that of Prof. J. Mardones and colleagues of Chile, who extended their studies of color vision among the alcoholic, using the Farnsworth Munsell 100 hue test, and concluding that a genetic polymorphism related to color vision defects of the X chromosome is present among alcoholics.

Hyponadism, particularly Klinefelter's syndrome, is associated with a disproportionate rate of alcoholism, according to E. Negulici et al, of Bucharest, Rumania. They ascribe this to deficient psychosexual maturation.

The possibility that nurture may influence alcohol preference was indicated by the experiments of M. Ueda and S. Komura of Japan's Kyoto University. Mice of a low alcohol-preference strain were nursed by a 'foster mother' of a high alcohol preference strain. When compared to controls, they had a significantly higher alcohol intake.

Fatty Liver

Fatty-liver came under scrutiny. G. Ugarte et al, from Chile, concluded

that 24% of alcoholics do not develop liver damage. Diet histories and estimates of alcohol consumption when compared between the group who did and did not develop such damage showed no significant differences. On the other hand, further data of Dr. Charles Lieber of U.S. showed fatty metamorphosis occurring independent of dietary regimen, and after only 2 days of ethanol consumption; electron microscope studies showed the mitochondrial alteration, smooth endoplasmic reticulum increase and focal cytoplasmic degradation expected from his previous longer term studies. D. Gaillard of the University of Toulouse, France was unable to find increased steatosis in rats whose diet prior to alcohol consumption was rich in lipids and poor in proteins. He felt that during malnutrition, alcohol is metabolized more slowly. O. A. Forsander from the Research Laboratories of the State Alcohol monopoly of Helsinki, Finland measured redox levels in cytosol and mitochondria and the Respiratory Quotient. The changes after alcohol could be explained by the inhibition of oxidation of fatty acids in the citric acid cycle.

W. R. Woolees (merical Coll. Va., Richmond, Va.) administered chlorcyclizine and promethazine to rats and found them effective in reducing fatty liver development.

Metabolic Effects

Other general metabolic effects of alcohol found increased fibrinogen levels related to the elevated erythrocyte sedimentation levels often seen (Rice, E. W. Singer Memorial Institute, Pittsburgh, Pa.), increased elimination of sulfur

in the urine (R. Derache, U. of Toulouse, France) efflux of potassium from cells incubated with alcohol (H. M. and J. E. Redetski, Louisiana State U., New Orleans) inhibited active transport of amino acids, leading to effective protein deficiency (Y. Israel, U. of Chile, Santiago). Electrolyte derangements unexplainable by known diuretic or hormonal changes induced by ethanol ingestion were found by J. H. Mendelson et al (NIMH, Chevy Chase, Wash., D.C.)

Increased mitochondrial size might be related to the increased metabolism of alpha-glycerophosphate in ethanol treated rats, suggested K. H. Kiessling of U. of Uppsala, Sweden.

M. H. Kniseley, (Med. Coll. South Carolina, Charleston, S.C.) found that alcohol produced sludging, increasingly at increased concentrations, and suggested that because of this, blocked capillaries might produce the brain damage, and that of the liver and heart in alcoholism.

Acetaldehyde

An important warning on laboratory procedure was made by Dr. E. B. Truitt, Jr. of the Battelle Memorial Institute, Columbus, Ohio. He found that blood precipitation by several reagents will cause acetaldehyde release in blood containing inebriating levels of alcohol. This constitutes significant artifact.

That acetaldehyde accumulation is related to the effect of antabuse, was demonstrated by Feldstein, A. (Worcester Foundation for Experimental Biology, Shrewsbury, Mass.) whose radioactive carbon tagged 5 hydroxytryptophol administered to rats was

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Published quarterly by American Medical Society on Alcoholism, Inc. Publication has been made possible by a grant from the Christopher D. Smithers Foundation.

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