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HISTORIC RULING

A U.S. Court of Appeals tribunal in Richmond, Va., has ruled unanimously that it is "cruel and unusual punishment" to arrest and treat a chronic alcoholic as a criminal; he might, however, be held for medical treatment.

The case involved an individual who had been convicted of public intoxication more than 200 times and who estimates that he has spent more than twothirds of his life in jail.

Crux of the decision, which set aside a 2-year sentence, was the court's statement that alcoholism was "now almost universally accepted medically as a disease."

NKS ADH DIVERSION TO ALCOHOL DAMAGE

Diversion of the enzyme, alcohol dehydrogenase, from its usual functionas yet unknown-to the task of detoxifying alcohol may produce the damage known to occur in alcoholism, postulated Dr. Hugo Theorell, director of the Nobel Institute of Biochemistry, at a Harvey Lecture at the New York Academy of Medicine.

Although alcohol dehydrogenase had been isolated from yeast in 1937, it was first extracted from horse liver by Bonnichsen and Wassen in 1948 in Dr. Theorell's Nobel Institute Laboratory in Stockholm. It has been scrutinized extensively there and elsewhere and is a model for studying the kinetics of enzymes. Changes in light absorption and fluorescence, crystallography and analyses using competitive inhibition with pyrazole have all been possible.

In spite of the fact that liver alcohol dehydrogenase is one of the most intensely studied of all enzymes, we have at present no idea about its real role in atabolism. Dr. Theorell noted that ere is a wide distribution of alcohol dehydrogenase in organisms which never

come into contact with ethanol, so that (Continued on page 2, col. 3)

'TOTAL ABSTINENCE' TERMED OBJECTIVE OF TREATMENT

Alcoholic patients whose treatment led to total abstinence had the best chance of marked improvement of social adaptation, according to Dr. D. L. Davies, director of psychiatry at Maudsley Hospital, London, England, a major teaching center. He spoke at a seminar at Norwalk Hospital, Norwalk, Conn., about an article of his which had been widely thought to endorse treatment directed at a return to social drinking.

Misunderstandings had arisen as a result of his report, "Normal Drinking in Reversed Alcoholics" published last vear in the Ouarterly Journal of Alcohol Studies. The article reports the elaborate follow-up studies of patients treated for alcoholism in Maudsley Hospital, in an attempt to delineate the natural history of alcoholism. Seven of the fifty patients, and four of sixty two controls (alcoholics who had refused treatment) had returned to social drinking seven to eleven years after being first seen.

However, of the treated patients, ten who continued to drink were either dead, in prison, had committed suicide, or had otherwise deteriorated markedly. Eighteen were abstinent, five of whom made marked improvement in social adaptation. The twenty-two who were rated no worse or who managed some improvement in drinking or social adaptation included the "social drinkers".

Dr. Davies pointed out that the few patients who returned successfully to social drinking had, at the time of their alcoholism, some unacceptable situation in their lives-such as an unsuccessful marriage or an inappropriate job-which had been corrected by the time of follow-up. According to the American experts present at the conference, including Dr. Ruth Fox, Dr. Adele Streeseman, and Marty Mann, these correspond to what is termed in America, "situational drinkers".

Although extensive psychiatric evaluation was performed, neither on admission to the hospital nor on discharge could it be predicted who would do well or who poorly. This would make it impossible to select patients to be advised that they could return to social drinking. When evaluations were made six months after discharge, 80% correlated with later follow-up.

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CENTRAL ISLIP OPENS ALCOHOL FACILITY

Dedication of the Charles K. Post Center for the rehabilitation of women alcoholics at Central Islip Hospital on Feb. 23, 1966 calls attention to the unique facilities provided for both male and female patients with alcoholism at this state hospital.

A key feature of the program is the inclusion of the patient in decisions regarding his length of stay and treatment procedures.

All admissions, however, are voluntary and the patient must show a sufficient degree of motivation to enter the program willingly and to stay for a reasonable length of time. He must be sober and free of serious mental or physical disability.

The hospital will accept acutely intoxicated alcoholics if they are in sufficient contact to sign a voluntary paper, according to Dr. Robert F. Wagner, Assistant Director in charge of the new program. It will also accept both certified alcoholics who have complicating psychoses and unwilling alcoholics on a two-physician certificate in accordance with current state regulations. "However," said Dr. Wagner, "the latter types of cases are retained on the admission or infirmary services until well enough to be converted to voluntary patients before admission to the rehabilitation units."

The rehabilitation procedure consists of a week of intensive orientation using lectures, demonstrations and visual aids. The period is designed to acquaint the alcoholic with the nature of his problem, to stimulate his interest by identification with the group and to reassure him by

(Continued on page 2, col. 2)

PERSPECTIVE ON FLAGYL

Recent press reports of a drug claimed to cure alcoholism, and called by the New York Times, "a venereal disease drug", gave exaggerated hope to many alcoholics and caused dismay among those who treat them.

The first use of the drug, metronidazole (or Flagyl), for alcoholism was reported in a single case by Jo Ann T. Taylor, Associate Clinical Professor of Clinical Pharmacology of California College of Medicine, U.C.L.A., in the Bulletin of the Los Angeles Neurological Society (29:158-62, Sept. 1964).

The dramatic report presents the observations of the wife of an alcoholic treated with metronidazole. She records her husband's decreased interest in alcohol during the administration of the drug for trichomonal urethritis and his later Antabuse-like reaction to it while on a binge. She describes his rapid recovery from delirium tremens after its administration (four days later he was back at work) and his aversion to alcohol thereafter during treatment with the drug. A three month period of sobriety ensued.

Dr. A. W. Pearson, in a preliminary study on acute withdrawal trials in 53 patients, indicated Antabuse-like effects in 25 per cent; subjective improvement and tranquilization were the rule. Dr. Philip Friedland, chief of the alcoholic unit at Meadowbrook Hospital, and Dr. Herbert Walzer of Queens General Hospital have found promising results in 100 patients.

Evidence has been presented that metronidazole inhibits alcohol dehydrogenase. Other effects are being studied. The presence of neurological damage or severe liver disease are at present considered contraindications to its use.

TREATMENT GOAL

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All patients in the study group were treated with Antabuse as well as with psychiatric and milieu therapy. Any alcoholic patients who gave indications of sexual aberrations, pathological lying, or gambling were excluded from the group under study.

The report quoted the statistics of these and other studies which show suicides among untreated alcoholics to be 55 times the normal and mortality to be five times the normal.

Dr. Davies concluded that although a small percentage of patients treated as alcoholics may later be able to return to normal drinking patterns, the goal of treatment is lifelong abstinence. In a letter to PHYSICIAN'S ALCO-HOL NEWSLETTER, the manufacturer, G. W. Searle Co., says it is confining its investigation to in-depth studies and points out that it has no present license for the distribution of metronidazole other than for trichomoniasis.

Dr. Ruth Fox, director of medical research for the National Council on Alcoholism, states that Flagyl "is a little like calcium cyanamide which is used in Japan. With either, a person can take one or two drinks without becoming ill. More than this produces a real Antabuse-like effect. I cannot say that these are any improvement over Antabuse. It has not yet been demonstrated that Flagyl takes away the desire for drinking."

With the memory of thalidomide fresh in mind, wise physicians will be cautious in administering metronidazole, used at present in short courses for trichomoniasis, to alcoholics on a wide, long term or uncontrolled basis. We await with interest careful double-blind studies on its usefulness.

CENTRAL ISLIP

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a non-critical acceptance of his problem. At the end of this time he meets with the staff and decides with them whether or not he will stay and what forms of treatment seem most appropriate to his case. In subsequent weeks the alcoholic is exposed to any or all modalities of rehabilitation including individual and group psychotherapy, group counselling, occupational and recreational therapy and pharmacological therapies.

The decision to release is reached mutually by both patient and staff. If requested, assistance in the area of job placement, as well as assistance through various social agencies is available.

The units are staffed by supervising and senior psychiatrists, psychologists, social workers, lay alcoholism counsellors, occupational and recreational therapists, nursing and ward personnel among whom, notes Dr. Wagner, there is a free exchange of opinion and a well-defined interdisciplinary approach.

Geographic limitations on admission confine the program to residents of Manhattan below Fourteenth Street; of the west side of Manhattan below 86th Street; and of Suffolk County. Selected patients from other areas may be admitted when a bed is available but only if contact has been made with the hospital in advance to determine whether the patient conforms to admissions criteria. The program can accommodate seventy males and thirty females.

IN-PATIENT FACILITIES

(If you have a patient who needs inpatient treatment for alcoholism, these hospitals have open facilities.)

Central Islip State Hospital

Central Islip, L.I., New York 516 CE 4-6262

For admission, call Ward D-4 for men-Dr. S. Blume; Ward G-5 for women.

Mt. Carmel Guild Hospital

396 Straight Street Paterson, New Jersey 201 LA 5-1858

For admission, call Father William Hall; accepts both men and women.

Trafalgar Hospital

161 East 90th Street New York, New York TR 6-6600

For admission, ask for Mrs. Kennedy, Dr. Fisch, Dr. Dienstag.

Westchester Division, New York Hospital

White Plains, New York 914 White Plains 9-8300

Will accept alcoholic patients only on a voluntary basis and those who are willing to accept six months treatment. \$325.00 a week covers all charges.

Freeport Hospital

267 South Ocean Avenue Freeport, L.I., New York Admission through AA Intergroup. Call OR 9-3355 and ask for Hospital Desk.

Doctors Hospital

275 Warner Avenue Roslyn Heights, L.I., New York Admission through AA Intergroup. Call OR 9-3355 and ask for Hospital Desk.

ADH DIVERSION

(Continued from page 1)

its usual physiological function must be sought elsewhere.

When alcohol is present, ADH works on it in preference to other substrates, preventing performance of its normal function. In other words, the unknown function is postponed while ethanol is oxidized in the body; if this function is of vital importance, its lapse could eventually cause the damages known to occur in chronic alcoholism.

Liver ADH has been characterized as having a molecular weight of 84,000; it was, at first, thought to have two atom of zinc per mole, but it has recently been shown to have four atoms of zinc. Amino acid composition has also been largely determined.

PROBES ACTION OF ALCOHOL IN PRECIPITATION OF GOUT

A mechanism through which alcohol may play a role in the precipitation of attacks of gout has been investigated by a Cornell researcher. By-products of alcohol oxidation in the liver result in increased levels of lactate in the blood. This, in turn, results in a decrease in urinary uric acid excretion, leading to what Doctor Charles S. Lieber of the University's Medical College calls alcoholic hyperuricemia secondary to renal retention of uric acid.

Dr. Lieber became intrigued with the problem of the relationship of alcohol and acute attacks of gout when a patient, who suffered from alcoholic liver disease, experienced repeated attacks of gout clearly precipitated by alcoholism.

In twelve individuals hospitalized for acute alcoholic intoxication, Dr. Lieber found that each had an initial serum uric acid level which was higher when he was acutely intoxicated than thereafter. In half of these, the level of serum uric acid was above the upper limit of normal. These values fell when the patient recovered. On the average, the fall was 40 per cent.

Noting that these observations did not

prove a causal relationship between alcohol and the uric acid elevation, Dr. Lieber's next step was to determine whether alcohol per se is capable of altering its level. Pure ethanol was given to subjects on a diet constant in purine. Alcohol, administered orally to some and intravenously to others, was accompanied by a rise in serum uric acid with a return to normal after alcohol had been discontinued. An infusion of saline solution given the same individuals caused no significant change in the serum uric acid level.

In a subsequent study, Dr. Lieber found that alcohol given over a 12 to 24 hour period, preceded and followed by control periods, again resulted in a rise in serum uric acid which was associated with a remarkable decrease in uric acid excretion. At the peak of the alcohol effect, uric acid excretion was only about one-half to one-fifth of the lowest control value, with a return to normal after cessation of alcohol intake. Assuming a normal and stable rate of uric acid production, such a decrease in urinary excretion of uric acid could amount for the observed rise.

STUDY LINKS ALCOHOL, CANCER

A study has shown a significant relationship between heavy alcohol consumption, smoking, and cancer of the mouth and pharynx.

Working with patients at three New York City VA Hospitals, Doctors Andrew Z. Keller and Milton Terris studied 598 cases of cancer of the mouth and pharynx and an equal number of agematched controls admitted to these hospitals between 1953 and 1963.

No association of cancer of the mouth and pharynx was found with syphilis or diabetes mellitus. There was no association with race. Both alcohol and to-bacco consumption were associated with cancer of the mouth and pharynx. However, these habits are known to be related. Of the 258 cases in this series who were heavy drinkers, 35 per cent are also heavy smokers; this was true for only 15 per cent of the 286 cases who were not heavy drinkers. A similar relationship was demonstrated among the controls.

The manifest association of heavy drinking and heavy smoking made it necessary to test the independent roles of alcohol and tobacco. This was done by examining the data on alcohol consumption for pairs matched by tobacco use, and vice versa. The findings clearly indicated that both factors are independently associated with cancer of the mouth and pharynx.

The data were based on routine admissions information, presumed to be comparatively reliable for tobacco use. Social attitudes towards alcoholism plus the imminent reduction in VA benefits to known or admitted alcoholics may induce respondents to report their drinking habits inaccurately. It is likely, therefore, that the data presented on alcohol consumption were underestimates.

Supporting evidence was found in two areas where cancer of the mouth and pharynx paralleled known incidence rates of alcoholism. With patients of the Jewish religion, among whom alcoholism is rare, there was a low incidence of these cancers; and with patients having cirrhosis of the liver among whom alcoholism is frequent, the incidence was high.

The investigators concluded that this study provides positive evidence of the relationship of alcohol use to cancer of the mouth and pharynx.

Doctor Lieber, as well as other researchers, had previously shown that alcohol increases the concentration of lactate in the blood. He now postulated that the observed effect of alcohol on the urinary acid excretion could be due to this rise in lactate. Measurements of blood lactate demonstrated the merit of the hypothesis. The rise was about two times the amount known to affect uric acid excretion. It was further demonstrated that an individual who had been given ethanol in the previous study and who was now given lactate, achieved levels of lactate in the blood which were equal to those produced by alcohol. Again there was a rise in serum uric acid and a fall in urinary uric acid output. Thus it was substantiated that under metabolic ward conditions the fall in uric acid excretion which alcohol produces is due, at least in part, to the effect of the increase in blood lactate.

The question of whether a similar mechanism plays a role in patients spontaneously and acutely intoxicated was not answered conclusively. However, some direct evidence that the mechanism does play such a role was provided when measurements of blood alcohol and blood lactate in eight individuals brought to the hospital in an intoxicated condition indicated that while the alcohol content was predictably high, the blood lactate was, if anything, higher than the levels which had been achieved under hospital conditions.

Concluding that it is reasonable to assume that alcoholic hyperuricemia is due at least in part to a decrease in uric acid excretion, secondary to the increase in blood lactate, Dr. Lieber pointed out that when alcohol is oxidized in the liver under the influence of alcohol dehydrogenase, it is converted to acetaldehyde. Since it is known that this oxidation is coupled with reduction of pyruvate to lactate, he reasoned that this would account for the increase in hepatic lactate and also for the increase in blood lactate.

COMMUNITY ACTION

New York City and the metropolitan area is to have the services of the newly-formed Committee on Alcoholism under the aegis of the Community Council of New York, a health and welfare organization. The committee will study and plan community-based facilities for the prevention and treatment of alcoholism.

Chairman is R. Brinkley Smithers, president of the National Council on Alcoholism and of the Smithers Foundation. He said that the Committee will be composed of public health officials, health specialists and civic leaders.

REHABILITATION FURTHURED BY SELF-IMAGE EXPERIENCE

A trio of researchers from the Jefferson Medical College and Eastern Pennsylvania Psychiatric Institute have implemented the advice so familiar to many alcoholics . . . "you should see yourself as others see you."

Experimenting with a technique they call the "self-image experience," Dr. Alfonso Paredes, associate professor of psychiatry, in association with Drs. Floyd S. Cornelison, Jr. and Peter Welt, presented at the nineteenth clinical convention of the American Medical Association the case history of an alcoholic confronted with his own behavior—on film.

The investigators report that the experience acted as a stimulus to the acceptance of treatment and that the technique merits further clinical evaluation.

Dr. Paredes related the history of a 47-year old unemployed salesman brought intoxicated to the hospital. A film was made of his behavior with a recording of his comments. The alcoholic patient saw the film and heard the recording a few days after his admission; his reactions while watching were also filmed. His response to seeing his own behavior for the first time was one of detachment, Dr. Paredes observed; at one point, he said, he almost smiled.

Subsequently, however, he returned for consultation, commenting that the film had aroused his curiosity. He was then shown the second film, which depicted both his behavior while drunk and his demeanor while observing the earlier film.

That night, the patient reported hearing imaginary voices calling him "skid row character, bum, ungrateful son," etc. Although this had been preceded by three similar incidents in the past, said Dr. Paredes, none had frightened him before. "The same night he decided to quit drinking. A week later he obtained a job where he is still employed. He joined Alcoholics Anonymous and has attended their meetings regularly." It has been several months since his rehabilitation.

Dr. Paredes said that the objective of the approach is "not to shame the patient but to show him an aspect of himself that he may not have appreciated." He stressed that the method is not a cure, nor even a therapy, but that its value lies in startling the alcoholic into a realization of his condition.

MEETINGS

National Council on Alcoholism Annual Meeting and Institutes, Waldorf-Astoria, N.Y.C., April 12-15; Affiliat Workshop, April 13: Annual Symposium, N.Y.C. Medical Society on Alcoholism.

BOOKS

New Primer On Alcoholism, Marty Mann, Holt Rinehart and Winston, Inc.

Progress In Liver Diseases, H. Popper and F. Schaffner, Editors, 2nd Edition, Grune and Stratton, 1965, N.Y.

Physician's Manual on Alcoholism, Saul Cohen, M.D., The Saskatchewan Bureau on Alcoholism.

Alcoholism, Neil Kessel, M.D., and Henry Walton, M.D., Penguin Books Inc. 1965

REACTION TO HUSBANDS' SOBRIETY

Sobriety in an alcoholic is associated with decreased personality disturbance in his wife, according to a psychometric study by psychologist Kate L. Kogan and sociologist Joan K. Jackson of the University of Washington School of Medicine.

Whereas this may appear obvious, it has been widely held that women with pathological personality needs selected husbands who were, or were likely to become, alcoholics. If the alcoholic improved, this would lead to psychological decompensation in the wife.

Analyzing the results of Minnesota Multiphasic Personality Inventory tests on 26 women whose husbands were sober at least 12 consecutive months, 50 wives of active alcoholics, and 50 women married to non-alcoholics, the investigators found the most disturbance in the wives of active alcoholics, and the least in the wives of non-alcoholics. The wives of sober alcoholics were intermediate.

These findings were most consistent with the theory that both premarital personality disturbance and the stress o' living with an active alcoholic contribute to disturbance in the wives, but were inconsistent with the supposition that sobriety in the alcoholic would increase the disturbance in the wife. The findings also support the view that treatment of the alcoholic patient should be directed at his own disturbance, while that of the wife should be directed at increasing her own comfort with herself while living with an alcoholic spouse. (26QJAS 486)

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