Original Articles.

THE IMPORTANCE OF DETERMINING THE CAUSES OF INEBRIETY.*

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WITH a subject before us as formidable and far-reaching as is inebriety, it behooves us to make a critical examination of the foundations upon which this great structure has been piled rather than to blindly storm at it from the platform and the pulpit. In making this statement I do not intend to belittle the good which has been wrought by educators and prohibitionists; in fact, their aid would be beyond value if it were put upon the proper basis of co-operation with scientific medical knowledge. The problem of inebriety is so broad that it has to be studied from its social, its political and its economical as well as its medical aspects, and I regret to say that the laity have handled their phases of the question with perhaps more interest than we have ours. At any rate, the time is ripe that the medical profession should gain unanimity of opinion as to the nature of inebriety and give concerted support toward lessening any further deterioration of the race by this agent.

As you are aware, in earlier history a mental deviation from the normal meant that the victim was possessed of evil spirits, and we do not have to retrospect many years, either, to see these victims receiving chastisement as part of their asylum treatment. But as the light is breaking upon other nervous and mental disorders, and giving us a clearer view, so is it sifting through the veil of ignorance and prejudice which has shrouded the allied disease of inebriety.

We realize, of course, that it is simpler and more quickly effective to discover the positive source of an infectious disease like yellow fever than a complex disease like inebriety, but the principle is the same, and there is room for many a Dr. Reed. Let me draw an analogy: Recently I heard Dr. Orton, pathologist at Worcester State Hospital, tell how he controlled the source of an epidemic of dysentery at the hospital. He first determined by culture plates that flies were the carriers, and then, finding that the only way to permanently eliminate these was to destroy the maggots in their breeding places, he made a study of these breeding places, destroyed the maggots and the epidemic ceased. So in this epidemic of inebriety which besets our race, we cannot succeed by curtailing the common carrier, the saloon; we must get at the maggot,—the demand for intoxication,—and we find this demand uncontrollably rampant only in certain selected types of individuals, the psychopaths.

The psychopathic or nervously unstable disposition lies back of most of the difficulty in handling inebriety, and, for that reason, it deserves further study.

First, whence comes it? The evidence is over-

whelming that this type may almost always claim a neurotic legacy from their forebears. I do not mean that an inebriate necessarily begets an inebriate, or an epileptic an epileptic, but it is proven that they are the offspring of some one with chorea, migraine, hypochondriasis, insanity, inebriety or other neurosis. Many neurotic diseases are correlatives of one another. The phase may change in transmission so that what was neuralgia in the parent may become hysteria or chorea in the offspring, and these or other neuroses lead in turn to insanity, dipsomania or inebriety.

A recent monograph from the eugenics laboratory of the University of London tends to show that parental alcoholism is not the source of mental defect in offspring, but this is so contrary to general opinion that it will not be at once accepted. The real key to the situation, however, is this: In the neurotic an abnormal, unstable germ-plasm is transmitted which with development tends to make the bearer susceptible to influences toward inebriety which environment may put in his way.

Let us, in the second place, watch this psychopathic tendency in its development. It appears in childhood by disturbed sleep, apprehension, strange ideas, with precociousness in certain lines, sensitiveness to external impressions, high temperature or convulsions from slight causes, bursts of temper, muscular twitchings, capricious appetite and a great intolerance of stimulants. Approaching puberty there may be developmental abnormalities and occasionally perverted sexual instincts. Later, self-consciousness and introspection develop, often with excessive shyness or bravado. The imagination is active, the emotions strong. Personal attachments or dislikes are vehement, but often inconstant. Restlessness develops, home associations become a bore, steady occupation fails to attract and concentrated and sustained effort seem impossible. Sometimes, however, music, poetry, invention, genius and originality spring from this soil, though desultory effort and shiftlessness are much more common. How unenlightened it is for any platform enthusiast to maintain that inebriety is never a disease, and that only fools fall victims in alcoholic excess, when many of those who become inebriate are among the most gifted, most generous and most guileless souls of their community. What other tie that could bind them to the lot of the wanton and worthless drunkard than this psychopathic predisposition?

Having disposed of the breeding place, the predisposing cause of inebriety, we must next consider the different factors which have to do with a demand for intoxication. One finds upon library shelves volume upon volume dealing with the effects of intoxication, but scientific literature is extremely scant dealing with the causes of intoxication. The need for more light on this subject is one excuse for its introduction here.

To make a working basis, let us assume that the intoxication impulse is fundamentally either physical or psychological, though the two may be combined. We may consider that the physical

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impulse toward intoxication arises (1) from a desire to escape pain,—many painful bodily conditions bringing the desire for alcohol as it does for other drugs; (2) from the desire to escape exhaustion arising from illness, physical shock, lack of food, or the stress and worry of modern life begets a desire for stimulation. This is, perhaps, the most important physical exciting cause of inebriety and includes some well-authenticated cases following trauma, surgical operation or other acute exhaustion. We must not, however, be misled by such biased individuals as the usual labor walking delegate, who gives his tacit aid to the saloon by stating that in almost all cases the inability to buy sufficient food is the cause of alcoholism. The fallacy of this must be evident when we consider that a loaf of bread costs no more than a treat of beer. (3) Another allied cause to the above is the physical unrest and boredom which afflicts the neurotic and the idle. They crave an alcoholic vein-tingle as they do an exciting automobile race.

A well-recognized exciting cause is the influence of occupation. Many salesmen and merchants become inebriate victims from the custom of furnishing dinners and wines to put through a trade. One patient of mine startled me with a recital of the amount he was supposed to imbibe in the interests of his firm when on a trip. Horse-keepers seem to have a special predilection to inebriety. The other day a stable proprietor of forty years' experience told me that he never had a man who was naturally adapted to care for horses who did not go on an occasional drunk. I believe here we are dealing with a peculiar animal-loving but unstable temperament which is naturally susceptible to intoxication.

Some writers lay considerable stress on the influence of climate in inebriety, putting an especial stigma on the damp, chill climate of Northern Europe and North America, though to my mind there are several other influences more potent than atmosphere acting in these countries. The incidental factors such as age, sex, pregnancy and dysmenorrhea are more or less important in the etiology of inebriety.

Before dismissing the physical exciting causes we must deal with such terms as "diseased craving," "physical appetite," etc., which are so generally used, especially by quacks, to imply that inebriety is due to perhaps a chemical change in the tissues which may be remarkably cured if only the patient will avail himself of the antidote or discovery of which Dr. ——— is the inventor. Here, again, we are dealing with a commercial opinion which all scientific evidence and experience goes to refute. In fact, it is evident that whatever good results have come from taking the various cures have been mainly due to isolation and mental suggestion.

This leads us to the study of impulses tending toward inebriety of psychological basis: (1) Imitation. The tendency to imitate may fairly be said to be a part of human nature, and because it is so natural it receives no personal attention. This impulse to imitate arises in not only the

small boy, who wants to smoke a cigarette and become a real man, but also in the adult, whose line of least resistance is to follow the crowd and laugh and drink with the world. And imitation is not harmful for those who do not lose their individuality and ability to choose rightly for themselves. It is the weak-sisters, the trailers, who come to grief when they follow the wrong leader. (2) The second psychological impulse we might call glorification of pleasure or abandon. The desire to revert to more primitive states of consciousness is the impulse which appears everywhere in the literature of drink as a narcotic motive. The theme is: "Away dull care, let's to the cup," or, as Omar Khayyām sings:

"I am a slave of that sweet moment when
They say take one more goblet and I cannot."

Thus the modern seeks to hide from the rush and clatter of his workaday world even as the ancient stole away with his *laissez-faire* ideal. (3) Another impulse is to increase individual sense to the detriment of common sense. At the present time the ability to endure mental activity at a high grade of tension is much sought to make one man excel another. To this end man casts about for drug stimulation. The early effect of the drug is to increase the intensity of consciousness, to sharpen the wit, to increase the sense of well being and, even though a reaction follows, the total serves as a strong impulse toward inebriety.

One could cite many analogous examples of this craving for intense states of consciousness. Such are the love of high emotional states common among children, violent games, ecstatic dances, revival meetings or even playing bridge for stakes. Psychologically considered these states show much similarity, and a study of them leads to the conclusion that intoxication is one form of expression of a general impulse which is deep-seated in consciousness.

(4) An etiological study of inebriety would not be complete without a consideration of the effects of bereavement, disappointment, ill-fortune or sudden good fortune. The effect of these upon a stable nervous system, especially if fortified by higher influences, will not be crushing; in fact, it often strengthens character. The neurotic, unstable victim, however, staggers under the load and flees often to the soothing balm of an intoxicant.

The history of intoxication shows that it has been exceedingly prevalent at times of rapid development, not only of the individual, but of the race. At the adolescent period impulses to new lines of action develop more rapidly than self-control. Monotony and routine are unendurable; strong emotions, partly sexual, develop, sometimes leading toward the flowing bowl. In this connection Beard¹ says:

"In civilization the expenditure of force is vastly greater than in barbarism, because the brain, especially, is more active. To compensate for this expenditure, to retard the waste of tissue, or, at least, to sustain the body amid the cares,

¹ "Stimulants and Narcotics."

toils and pressure incident to advanced civilization, men resort, not only to a more liberal and abundant variety of food than the savages use, but also most employ a wider range of stimulants and narcotics. It would seem that the use of stimulants and narcotics in general has increased with the advance of the race. In general, also, the higher civilized races use stronger liquors and more abundantly, and since in the lower races there is less moral and other restraint, we must conclude that they are not tempted to drink to excess, that they do not enjoy the exciting effects of the stimulants as do the northerners. There is ten times as much intoxication in Great Britain and the United States as there is in Germany and France. There is far more of the grosser type of intemperance in the northern than in the southern climates. This difference is due primarily, probably, to difference in environment, climate, etc., and only secondarily to difference in race. The English, the Germans and the Americans are of all people the most energetic. Associated with this courage and vigor is a powerful development of some of the lower passions. They are fond of eating and drinking, and although less licentious, less artful than the French, Italians and Spanish, they are more addicted to coarse and brutal crimes. Coarse crimes and drunkenness are twigs growing on the same stem."

Having treated the hereditary predisposing causes and the exciting causes of inebriety, both physical and psychological, we come to the common carrier, the saloon. The control of this is not a medical subject, but its existence depends upon the presence of the foregoing etiological factors. I will offer one suggestion, however, based upon personal observation of customs in various nations: If political and social workers in this country could so far modify the opinions of extremists for and against alcohol that it might become unlawful or at least uncustomary to continue the treating habit, we should be largely relieved of common drunkenness. The quiet drinker would be with us still, but the day laborer would arrive home sober, having had to buy no more drinks than in the old country.

Inebriates might be placed broadly in two groups, — the social drinkers and the unsocial or solitary drinkers. The former drinks openly and without disguise, and it is frequently his fondness for company that is accountable for his introduction to drinking, if not for his adoption of the habit. You could all recall numerous examples of this group. The solitary inebriate, however, is apt to be of a very different temperament and is usually a true psychopath. Female drinkers are commonly of this type. Recently I was consulted by a nurse who had for a long time been in charge of some severe cases. She first took some stimulant to keep up her strength and relieve the mental strain of the cases. Before long she found herself relying more and more on the stimulant, but would drink only when she could be secluded in her room alone for some time. She at length became a victim of the drug, could conceal it no longer and was sub-

jected to treatment. Kerr² reported a case of a Christian worker who for years would drink to excess every evening by herself and, after sleeping the sleep of the drunken and taking a late morning bath, would sally forth on her round of religious work among the poor. She thus led two separate lives, each occupying about one half of her existence. This balancing of opposite poles of consciousness, so to speak, is fairly characteristic of some psychoneuroses.

Just a brief mention now of the two common types of alcoholism. (1) Voluntary alcoholism, in which group are included those who drink from pure "viciousness" and moral obtuseness or those who drink because they choose to have the fun of it, expecting to stop whenever they wish. This type we, as physicians, are not expected to control. (2) Involuntary alcoholism, under which head I include all true inebriates whether or not they started as moderate drinkers. It will be admitted, I trust, that where we can trace a direct hereditary stigma showing itself in mental or physical defect and neuroses, we are dealing with a pathological condition and need not express surprise if the inebriety is beyond control. But as to the type of inebriate who starts as a moderate drinker and ends as an immoderate drinker, can we say that we are dealing here only with a habit, or is the end stage a pathological condition of the cerebral and nervous centers?

If a patient of ours should begin to scratch his arm to stop an itching, and should persist in the habit day after day, even though there were no pathological condition in the beginning, there would be developed by this stimulation cellular changes in the skin which would constitute a pathological condition and which would require proper medical care to be remedied. The treatment here would be educating the patient's mind or tying his hands, and no physician called in would shirk the responsibility.

Just so with inebriety, the physician may not be aware of a patient's oft-repeated habit until the cellular reaction has become pathological, but he should recognize that state and realize that it marks the shifting of responsibility from the patient to the physician, and furthermore, the treatment is exactly as in the other case, i. e., educate the patient's mind, or, failing in this, tie his hands.

While this paper is not to deal with treatment except, from a survey of the causes of inebriety, to be suggestive as to the rational treatment, yet this suggestion could be narrowed down to practically one word which would cover the modern treatment of inebriety, as it could any other neurosis, and that word is *individualization*. In other words, the patient must be treated as an individual, not as a person carrying a disease label which puts him in a certain pen. Unless account is taken of the mental and physical make-up of your patient, and the forces that have been and are acting to produce that make-up, you probably will do no more for the patient than your next-door neighbor. It is true that many cases are

² Inebriety, 1888.

subtle, difficult or exasperating, but by availing oneself of modern methods of analysis, or, failing in that, by sending the most difficult cases where they can be under skilled observation in a special department of a general hospital or a sanatorium, unless the patient is entirely ignorant, the method of analysis will gain the patient's interest and co-operation, which is really the key to success in treatment. And it is essential to retain this co-operation of the patient after the immediate habit is under control. I think any expert will agree with me that this is an important point in the after-care of patients.

To illustrate some of the points which have been made, I shall report one case in more or less detail.

Last year there came to my service at the City Hospital a man thirty-five years old in profound alcoholism, with some delirium. I believe my interest was early aroused in him because my interne told me the patient had been a college man. I found out later, however, that he was one of the kind that attend only a few months. He was put under routine treatment to eliminate the alcohol and its effects, and became, within a few days, apparently as well as ever. At this time I applied myself to getting an accurate history and making an analysis of the case. It seems that his mother was of a nervous type and had had migraine from childhood. His father was more phlegmatic, but grew up in a town where it was considered good form to drink, and formerly often availed himself of the privilege, though not to great excess. This combination evidently gave adequate predisposition, for an older brother of the patient had been intemperate for some years, though he is doing better now. The patient had been an active, nervous youth, allowed to follow his inclination, and with a marked tendency to do as the other boys did, whether for good or ill. He thinks he began to drink beer at eighteen, gradually branching out to other forms of liquor. Questioned as to his object in drinking, he said it was not on account of the taste, but because of the stimulating effect, which made him more hilarious. He was not a constant drinker, but drank when out with others. Remembers going out with a friend when twenty-six years old and felt very sick the next day. He drank more then to get rid of the sick feeling, and kept up this cycle for a few days. These periods of inebriety occurred at varying intervals of time and naturally interfered with any constant occupation. The patient was married a dozen years ago, and a few years later brought his wife to Worcester. At one time under his wife's influence he kept sober for a few months, but for the last three years he had had no long periods of abstinence. During the past year he had been in the employ of a manufacturing firm where he showed such natural ability for his work that he would have advanced to a high position but for rather frequent absences on the excuse of illness. Even after discovering the cause of these illnesses, namely, alcohol, the manager tried various means to reform the patient and took him back several times on trial before giving him his final discharge.

The family doctor, a friend of his, had often advised him to stop drinking, but omitted to tell him how. His family were powerless to help him and, after losing his employment, he went on an extended debauch, lost from view of any of his friends for ten days, until he came into the hospital. To be as brief as possible, when the patient was convalescent I had a talk with the manager, who happened to be a patient of mine, and, though he regarded the case as hopeless, he finally agreed to give the patient a minor position in the plant. I discovered that recently the immediate cause of drinking had been the company of one or two colleagues at the plant who could drink and stop in time to appear in normal condition the next day. Such methods were impossible for this man.

The treatment in a word was this: I figuratively held a mirror before this man, explaining his make-up before he was born up to the present day, showing him that he was an individual and not simply a species, laid stress on the particular causes which brought him where he was, yet might not another; got it fixed in his mind how to avoid the danger points and made an arrangement for him to report to me at stated intervals. His reports have been: of no liquor craving since the first two weeks, increasing strength bodily and mentally, increased responsibility at the plant and a happy family at home. There has been no relapse in this case from the first, but I still require a report once a month.

Now, in conclusion, one suggestion in the field of preventive medicine. I recited at some length the symptoms that marked a neurotic child during development. Here, indeed, in the handling of these children is there place for the soundest common-sense backed by an accurate psychological knowledge and abounding perseverance. The impulse which prompts these nervous children to expect immediate satisfaction of any desire becomes, when unchecked, a habit. It is the sort of a habit which later allows the individual, without a qualm, to seize a stimulant to overcome an uncomfortable or annoying feeling. The method of handling these early impulses requires of the mother or the adviser an earnest study of that fascinating complexity, the heart and mind of the child. The aim of this study and training is to increase the natural resistance of the child to adversity and depression. In other words, we seek to promote, in place of the tendency to drop the toys and have a tantrum, the buoyant spirit which makes the child and the man a good loser in the games of life. And I have often noted that a person is more apt to be a good loser if he is a good player. It is in the games, then, the diverting amusements of the child, that we have the best opportunity of guiding the emotions which make for self-reliance, yet with regard for one's mates. The idea of team play, the bearing of one's honest share both in the work and the glory, cannot be conveyed too early. Words and argument are of little avail with these children, but they are acute observers when the action is suited to the word, as the results of kindergartens show.

The chief reason that play is superior to work in the development of a child's character is because it naturally arouses more interest. And interest stimulates effort, which is the basis of development. In fact, activity alone without effort lacks co-ordination and force and leads to bad habits of action and weakened will. In group games, in order to win, the boy learns to subordinate himself to a chosen leader and thus develops a respect for law and order.

The path of discipline leading toward success passes between two danger posts marked "too little" and "too great restraint." From the former springs up the impulsive, irresponsible individual whose mere wish is his excuse; from the other arises the self-conscious, over-conscientious and unnatural individual who has developed a neurosis from the very friction of a life of restraint upon normal activity. From these two extreme types are recruited most of the victims of inebriety. So we can, perhaps, agree with President Eliot, who said in effect at the recent centennial of the Boylston Medical Society, — "The future of medicine will lie more largely in the field of preventive medicine, and there are few greater opportunities for a man to employ his talent and his training with satisfaction." From the imperfect glimpse which I have given of one small corner of this field I trust may be gathered an idea of its fallowness.

PROFESSOR WERTHEIM'S METHOD FOR THE REMOVAL OF CANCER ORIGINATING IN THE UTERINE CERVIX.*

BY HENRY T. HUTCHINS, M.D., BOSTON.

It was with considerable hesitation that I accepted your president's invitation to address you on the subject of Professor Wertheim's operation for uterine cancer. We have all seen and read so much about this operation that it seemed a presumption on my part to attempt to add anything new to a subject so thoroughly understood by all who are doing major surgery. The fact is continually brought home to us, however, that we do not always cure our cases of cancer, — that our failures are many and lamentable. We must embrace every opportunity for open, free and frank discussion of methods for the cure of cancer that we may, out of the experience of a great many, choose the best method, and, working along the lines thus indicated, so perfect our technic that we advance as rapidly as possible toward the goal for which we are all striving. Realizing the familiarity of all surgeons with the actual operative technic of the so-called radical operation of Wertheim, I have thought it might be profitable to consider in just what ways this operation is fitted to combat, not so much the actual cancer of the cervix itself, as the complications which arise in every case where a cancer, originating in the cervix, has extended far out into the surrounding structures.

Were cancer originating in the cervix always

confined to the cervix itself, we would all cure our cases. A total hysterectomy is a common operation and one not fraught with great difficulties, but in this particular disease we are nearly always confronted not merely by a hysterectomy, but by an extensive removal of much diseased pelvic tissue and must work close to many important structures and under many technical disadvantages. The fact that an ordinary hysterectomy did not remove all the cancer and, consequently, did not cure, led Professor Wertheim, in 1897, to devise the procedure which he has consistently followed ever since. That this one procedure has been consistently followed from the start makes present statistics of value. The problems which presented themselves were: (1) how to determine the operability of a given case; (2) how to reduce the primary mortality due to infection; (3) how to obtain the greatest exposure of the pelvic structures; (4) how to control the bleeding deep in the pelvis; (5) how to handle the ureters and bladder in cases where the cancer extended far laterally or involved these structures. Each of these problems has received most careful consideration, and in their solution we have the present Wertheim operation. I would ask your attention, then, to a consideration of these difficulties as they are met with and handled by Professor Wertheim's method.

First, how shall the operability of a given case be determined? Before the present operation was fully developed, taking all cases of cancer of the cervix seen, the operability per cent was found to be about 15%. In other words, eighty-five cases out of every one hundred were declared inoperable and were sent home to die. Gradually the percentage of operability has increased, until during the last two years it has reached 61.9%; in other words, over half of the cases were admitted for operation. This great increase was brought about in several ways. As the technic of the operation improved it was found possible to remove more and more of an extensive cancer and to deal with the attendant complications. This let in some cases that previously were not considered operable. Greater skill in handling the ureteral and kidney complications admitted another large group of cases, and finally a broad campaign of education, more or less successfully carried out, has brought a larger number of early cases to the clinic. At the present time, the fitness of a case for the radical operation of Wertheim is determined by several factors: If the pelvis contains a hard, board-like, fixed mass extending in every direction, the case is inoperable. Should the mass be less extensive and less fixed, and yet by rectal examination large, firm, adherent, pelvic glands be felt, this case is inoperable. The size of the cervical growth itself is not a determining factor; in fact, some of the most favorable cases have the largest external cervical growth. If the cancer involves the vaginal wall to the vulva and has infiltrated laterally, the case is again inoperable. There are the so-called borderline cases when doubt exists as to the extent of the infiltration. These are examined most thoroughly by vagina,

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