THE SANATORIUM TREATMENT OF INEBRIETY.

BY FRANCIS HARE, M.D.,

Medical Superintendent of the Norwood Sanatorium for Inebriates.

INEBRIATE retreats have accomplished much useful work, and there is no question that they will continue to be necessary; but it has long been obvious that there is an enormous number of inebriates in the country who are anxious for relief, but who are unable, even if they are willing, to enter retreats for long periods. It is, moreover, certain that for some of these, at any rate, long periods of detention are unnecessary; all that such require is a clear start on the road to abstinence. Having had exceptional opportunities of studying the effects of the "short-term residence" on a considerable number of inebriates, inmates of our Norwood Sanatorium, I venture to think a brief account of our methods and results will not be without interest to serious students of the alcohol problem.

NATURE AND RATIONALE OF THE TREATMENT.

In patients who have been abstainers for several days before admission, the exhibition of a tonic containing red cinchona bark and gentian, together with minute doses of strychnine and atropine, is commenced at once. On the following day hypodermic injections of strychnine and atropine are commenced, and given regularly thrice daily after meals. The dose of these drugs is at first very small, and increases daily up to the point at which the patient loses all desire for alcohol. The indifference to alcohol so attained amounts in some few cases to a positive aversion. The dosage is maintained for a time, and decreases slowly, so that at the end of the course of treatment the initial minimal dosage is returned to.

In the case of patients who have been drinking up to the day of admission, the above special treatment is deferred, it may be, for a week or more. It is found generally advisable to wait for at least three days after the last dose of alcohol, and not to begin then unless the patient has lost his tremor and is sleeping moderately well. Neglect of this precaution tends to increase the nervousness and insomnia, and sometimes leads to an attack of delirium tremens. The majority of patients do not require any alcohol after admission. Others, however, who have been heavy and continuous spirit-drinkers, require to be graduated down somewhat cautiously. Despite high authority to the contrary, I am myself fully convinced that there are many cases of alcoholism, as well as of morphinism, in which the sudden complete withdrawal of the accustomed poison is dangerous. Delirium tremens is, of course, the main danger to be feared. Nevertheless, in the case of alcohol, the withdrawal can quite safely be rapid. During this preliminary stage, bromide of potassium in full doses is found of great advantage, except in the aged and in certain cases of idiosyncrasy. Other hypnotics are only rarely necessary.

The measure of success which has followed the use of the treatment depends, in my opinion, upon the empirical fact that the majority of alcoholic patients admitted into the Sanatorium do not, while under the moderate influence of strychnine and atropine administered hypodermically, evince any desire for alcohol, and therefore may be permitted with comparative safety a large amount of personal freedom. Usually not more than from ten to fourteen days' restriction to the grounds of the institution is found necessary. It is not reasonable to suppose that the course of drug treatment projects its influence on the alcoholic habit into the future, except indirectly through the psychological effect of the period of abstinence—abstinence maintained in spite of free accessibility to alcohol. Being freed for the time being from the desire for alcohol, the patient *enjoys* his period of abstinence, and naturally concludes that the continuance of this new enjoyment is worth some effort of will. It is obvious that the eventual success of this effort depends upon the individuality of the patient, and upon his subsequent environment.

Many factors, other than the course of drug treatment, undoubtedly conduce to the results which have been obtained. Much has been gained when a patient has made up his mind

RESULTS OF TREATMENT.

Number admitted	-	-	-	-	-	-	-	209
Remaining in Sanatorium on December 31, 1907	-							8
Number discharged or died (200 and 1 respectively)								201

There remain, therefore, 159 cases treated by the special course of strychnine and atropine and discharged. Of these, 10 were lost sight of on leaving the institution.

1. *Cases which Relapsed.*—These were 64 in number, or 42·2 per cent. of the whole. In 10 cases the relapse occurred during the course of treatment; in 6, immediately on leaving; in 8, in one month; in 4, in two months; in 4, in three months; in 1 case, in

four months; in 5 cases, in five months; in 8, in six months; in 5, in seven months; in 1 case, in eight months; in 2 cases, in nine months; in 1 case, in twelve months; in 1, in thirteen months; in 2 cases, in fourteen months; in 2, in fifteen months; in 3, in eighteen months; and in 1 case, in twenty months.

2. *Cases which are stated by their Medical Attendants, Employers, or Friends, to be Improved or Much Improved, but not Total Abstainers.*—These are 7 in number, or 1 less than when the last quarterly report was written; they constitute but 4·7 per cent. of the whole. The reports concerning these cases have been received at the following periods since the patients left the Sanatorium: 1 case, twenty-two months; 1, nineteen months; 1, seventeen months; 1, eleven months; 1, nine months; and 2 cases, three months.

3. *Cases which remained Total Abstainers when last heard of.*—These are 78 in number, or 52·3 per cent. of the whole. This class includes three patients who took morphia in addition to alcohol. The most recent reports of these cases have been received at the following periods since the patients left the Sanatorium: In 1 case, twenty-six months; 1, twenty-five months; 2 cases, twenty-one months; 1 case, twenty months; 2 cases, nineteen months; 1 case, eighteen months; 2 cases, seventeen months; 2, sixteen months; 2, fourteen months; 2, thirteen months; 6, twelve months; 1 case, ten months; 5 cases, nine months; 2, eight months; 1 case, seven months; 7 cases, six months; 3, five months; 4, four months; 12, three months; 9, two months; 11, one month; and 1 case, less than one month.

PROGNOSIS IN INEBRIETY.

All will admit that the prognosis in any given case of inebriety is a matter of exceeding difficulty. Still more difficult, if not impossible, is it to analyze and set down in plain language the numerous, complex, and often elusive, considerations which go to form the basis of that prognosis. Nevertheless, there are certain more or less clearly defined facts which are reasonably regarded as having some direct bearing on the question. These may be briefly referred to under the following four heads: (1) Causation; (2) Sex; (3) Age; (4) the Form of Alcoholism.

1. *Causation, especially Heredity.*—Outside the influence of social customs and ready accessibility to alcohol, most of the commonly

assigned causes of inebriety seem more in the nature of excuses ; they are, at any rate, but contributory or accentuating factors. But there is one factor of admitted importance — namely, heredity.

In 181 patients admitted to the Sanatorium, the question of direct heredity was investigated. The term "direct" in this connection implies that the disease of inebriety has shown itself in the parents or the grandparents, or in the brothers or sisters, of these relatives. It does not refer to insanity or other neurosis in the family.

Of the 181 cases,	there was no known heredity in	57,	or	31·5%.
"	"	"	doubtful	" " 18, or 9·9%.
"	"	"	distinct	" " 106, or 58·5%.

Such heredity was maternal in 24, or 13·3%, of the 181 cases.

"	"	"	paternal in	54,	or	29·8%,	"	"	"
"	"	"	double in	28,	or	14·9%,	"	"	"

It is thus clear that in more than half—I am inclined to think considerably more than half—of the cases admitted there is clear direct heredity, and this proportion would be materially increased were other neuroses admitted into the table.

It has seemed advisable to lay stress on the hereditary factor for several reasons. Its operation is, of course, quite apart from the influence of example ; indeed, a "bad example" often seems to operate beneficially. For instance, in many histories the grandfather was an inebriate, the father a life-long abstainer, the son an inebriate. This common sequence, constituting a spurious atavism, goes, I think, some way to upset the view, too often held by the general public, that hereditary cases are necessarily hopeless. It seems true, however, that pure dipsomania, the least hopeful form of inebriety, does depend on heredity in very high degree. Of sixteen cases admitted to the Sanatorium, in three only was the hereditary factor absent or doubtful ; in three cases the heredity was both maternal and paternal.

Nevertheless, apart from pure dipsomania, which, as will be seen, constitutes a very small proportion of the cases admitted to the Sanatorium, it does not appear that the existence of heredity materially prejudices the result ; indeed, the relapse rate has hitherto proved very slightly higher in the group of cases showing no heredity.

2. *Sex*.—Of the 149 alcoholic cases, more or less fully treated by the special course, and followed up more or less recently, 111 were males, 38 females.

Of the 111 males, 46, or 41·4%, relapsed (Class 1).

7, or 6·3%, were improved (Class 2).

58, or 52·2%, remained abstainers (Class 3).

Of the 38 females, 18, or 47·4%, relapsed (Class 1).

20, or 52·6%, remained abstainers (Class 3).

If on the male side Class 2 be added to Class 1, we should have an identical result in the two sexes. This seems in conflict with expectation, and it must be admitted that several considerations tend to discount the value of the bare figures. The number of data on the female side is hardly sufficient to establish a true percentage. The sense of conventional decorum is so much more readily shocked by female inebriety, that there is a tendency for women to seek treatment in an earlier stage of the disease; and after leaving the Sanatorium alcohol can be made much less readily accessible in the case of women. It may be then that in cases of equal severity and duration, and with similar subsequent environments, the prognosis would be less favourable in women.

3. *Age*.—The subjoined table shows 142* alcoholic cases, more or less fully treated by the special course, and followed up more or less recently, arranged according to age periods, together with the respective relapse rates:

Age Periods.	No. of Cases.	No. of Relapses.	Percentage of Relapses.
25 and under - -	5	2	40·0
26 to 35 - - -	42	19	45·2
36 to 45 - - -	56	22	39·3
46 to 55 - - -	30	15	50·0
56 to 65 - - -	8	5	60·2
66 - - - - -	1	1	100·0

Omitting the first and last two age periods, in none of which are the numbers adequate to prove anything, the lowest percentage of relapses is to be seen in the decennium 36 to 45. The result is largely in agreement with expectation. It is, I think, to be explained on the grounds that this age period contains a higher proportion of the steady dram-drinking class—a class in which

* The seven cases set down in the general results as "improved" have been omitted for the sake of convenience.

habit rather than temperament is the preponderating factor. In the anteceding decennium, especially in its early half, there would seem to be a higher proportion of impulsive drinkers; while in the decennium which succeeds, especially in the latter half, there is naturally a higher proportion of the most inveterate and broken-down cases.

4. *Form of Alcoholism*.—I have attempted to divide the cases admitted into the following three classes: (1) Dipsomania; (2) pseudo-dipsomania; (3) chronic inebriety.

Under dipsomania are included only those cases in which the recurrent invincible crave for alcohol distinctly preceded the consumption of alcohol. Under pseudo-dipsomania are included all those cases in which the recurrent crave did not precede, but invariably depended on, the consumption of alcohol. Under chronic inebriety are grouped the remainder, who were for the most part steady dram-drinkers or “soakers.” The figures for the three classes are respectively 16, 61, and 99.

It must be frankly admitted, however, that the dividing lines between the classes are anything but sharply defined. Class 2 probably contains a certain number of cases which would doubtless be included by many in Class 1. Class 3 contains some which might with equal justice be referred to Class 2, besides which it embraces a considerable number of cases which were inveterate and physically broken down. Hence the differential results of Sanatorium treatment in the three classes tend to be obscured. Nevertheless, a general statement may be made. The results seem best in chronic inebriety, nearly as good in pseudo-dipsomania, decidedly worst in dipsomania. Even in the last, however, there were several cases in which the interval appeared to have been materially lengthened.