Summary.—In all there is emotional depression; downcast, despondent, grieved, some of them are in tears. In very nearly all are suicidal ideas, and in many these are carried out in suicidal attempts. The emotional state is not always merely one of depression, with or without weeping, moaning, and a lugubrious aspect; indefinite fear or dread may possess the patient; he may be afraid to go to sleep, or perhaps, vaguely, of something about to happen. Some are extremely suspicious, or are timid, anxious, careworn, or are listless, or very obstinate, irritable, unsociable, sullen, sulky, slovenly, neglectful, forgetful.

Hallucinations and illusions exist in all, if we include those few cases taking the form of a *melancholia cum stupore*, where, extremely probable as is their existence, it cannot be definitely ascertained. Relatively predominating are the hallucinations of hearing, next most frequent are those of smell, and nearly as many have hallucinations of taste or of sight. At one period or another, or at several, refusal of food is a marked symptom in about two-thirds, and some disinclination for food or anorexia is noted in a few others. Insomnia is a frequent symptom. Some exhibit general apathy, at least at times. A few show marked mental confusion or excitement; and some are inattentive, or mistake the identity of their attendants, taking them for relatives; others wander aimlessly about.

Although only slight and transitory in one case, usually of *melancholia simplex*, delusions are found in all, except in the "thunderstruck" or stuporose, where, too, they doubtless exist. In some they concern the religious feelings and ideas; the patient fancies that he has done some wrong, or is forced to do it by his surroundings, or, cut off from hope of heaven, he bemoans his "poor soul," and has anxious, gloomy thoughts of the future. Some take the delusion that they have been poisoned, and usually by something placed in their food, and delusions as to their medicine, or in a few, as to deprivation of food, may be evinced. Some have delusions as to the hostility and malevolence of those around them, or of absent or of imaginary persons, or of all of these.

(To be continued.)

THE DIFFICULTY OF DIAGNOSIS BETWEEN DISEASE SYMPTOMS AND DRUG SYMPTOMS.¹

By ALFRED CARPENTER, M.D., M.R.C.P.

THE difficulty in diagnosis between symptoms produced by disease and those produced by drugs is not always an easy task to settle even by experts. It is not always easy in the police cell to distinguish between a so-called "dead drunk" person and one who is labouring under the effects of compression of the brain, caused by rupture of a cerebral vessel, or of compression produced by fractured skull. But this is not so difficult as is the task which the physician has to contend with, when called in to advise with another practitioner who has been freely exhibiting active remedies before the second opinion is sought for, or when the patient has been physicking himself with ardent spirits or other narcotics.

Having met with these difficulties on several occasions, I propose to consider one or two of them, and to detail to you some that I have met with in which the treatment, having been based upon imperfect information, was rapidly tending to poison the patient, and certainly would have done so if a change of treatment had not been made. The use of the thermometer, a careful examination of the heart sounds and the character of the heart's impulse, the condition of the respiratory function, the state of the skin, the action of light upon the pupil, and the smell of the expired air from the lungs, will always enable the skilful surgeon to be certain about the police case, unless there is drink and compression combined (not a rare state of things). It is always right to err on the safe side, and to give the patient the benefit of the doubt, if there is any; though it is very unlikely that severe mischief can be produced to the brain, even if the man be drunk, without there being some evidence of its nature, if it be looked for. However, it is not my intention to enter into the consideration of police cases, so much as to refer to some other conditions which the medical practitioner occasionally meets with in the sickroom.

I propose to detail two typical cases for your consideration, just as I met with them, but for manifest reasons giving no public clue to their whereabouts.

The first was that of an eminent merchant with numerous family connections, 65 years of age, a *bon vivant*, well known as a hospitable host as well as a genial guest. I am at his bedside in consultation with his ordinary medical attendant. He is semi-comatose; he has been so for twelve hours. His friends have been summoned from different parts of the country in the expectation of his death. There is general anasarca, some oppression of breathing, but a fair pulse, regular in its beat, 78 per minute; there is an aortic murmur with the first sound of the heart, but not very loud. The patient was able to be roused if spoken to loudly, and then dimly understanding what was said to him, but lapsing again into stupor; the eyes responded equally to light, and contracted to a point, equally dilating again on its removal: the conjunctivæ were turgid, the skin dry and felt hot, but the temperature, as taken in the mouth, showed that it was below normal, namely, 97.8°. The urine was very albuminous; the bowels had been freely relieved, indeed there had been slight relaxation for some time previously to the onset of his semi-coma. He had complained of feeling faint when the bowels acted; had for some days taken freely of stimulants, principally champagne and brandy, and since the previous day had swallowed about twenty-four ounces of the latter. He had passed at least three pints of water in the preceding twenty-four hours, and it was dribbling away slightly into the bed at the time of my visit. A catheter was introduced into the bladder and a portion drawn off, which was seen to contain about a quarter albumen after boiling. The comatose condition did not appear to me to be caused by uræmia, as there had been no arrest of urinary secretion, but the contrary, and there had been also relaxed bowels. The faintness was not caused by any serious heart embarrassment, for that organ, though probably fatty, and with aortic valves imperfect in consequence, as I supposed, of atheroma, was doing its duty. I came to the conclusion that the coma was rather the sequence of alcoholism than that of uræmic poisoning. I advised the cessation of the brandy treatment, which had really been pressed by the friends and nurses rather than the doctor, because it had been advised some time previously by an eminent London physician. I advised the administration of ammonia in its place, in minute quantities, with liq. potassæ, also in small doses. I urged the continuance of intestinal evacuations by means of assafoetida injections with small quantities of turpentine, and suggested a milk diet only. The following day the coma had lessened. It disappeared in forty-eight hours, and symptoms of gout manifested themselves a few days afterwards in the hands and elbows, whilst the respiratory difficulty diminished. The patient made a fair recovery in a few days from the imminent danger in which he was placed, and the anasarca lessened. He had however too much gout in his kidney, and atheroma in his aorta, to become convalescent; though he lived for four years after the time at which he was being rapidly poisoned by alcohol. The belief that the coma was due to the brandy, and not to the presence of uræmic poisoning, was thoroughly established by the result. Fortunately the kidneys did not immediately resent the excessive intrusion of the stimulant, for they continued to act freely, though the water was albuminous as long as he continued under my observation; the general dropsy declined, the aortic insufficiency however was not improved, and he remained for a long time incapable of exertion, though he did recover so much as to be able to take his place at the dinner-table again, and ultimately fell a victim to the renewal of his social habits of life, and a return to the pleasures of the after-dinner wine.

In this case, as in some others which I have met with, the aortic insufficiency has seemed to me to have been dangerously added to by the alcohol; and that in such cases, especially when there is gouty habit with albuminous urine, it seems to produce its comatose tendencies more rapidly than in other people, and in such cases I believe that all alcoholic stimulants should be rigorously withheld. This patient had been advised to take gin, by an eminent London physician, and for some weeks before the time at which I saw him had taken something like a pint a day, in the place of the port and brandy to which he was addicted. He could not or would not continue an abstaining course, for he preferred his port wine and obliviousness to discomfort and continuance in the flesh, though I am certain he would have lived some time longer if he had followed on the other tack, and even might have had a chance of recovery if he would have continued his absti-

¹ A paper read to the British Medical Temperance Association, Tuesday, February 21st, 1888.

nence, and have avoided those causes which tended to produce atheroma; for a kind of gluttony was indulged in, as well as a liking for wine.

The second case is altogether different in character, but quite as marked.

It is that of a young student who is working at his college; he comes home in consequence of inability to continue his mental labour, and with a feverish attack. He becomes ill, and I see in him what is considered to be the fifth day of an attack of typhoid fever. He is restless, has severe headache; his eyes are brilliant, and pupils somewhat inactive to the stimulus of light; his skin pale, and temperament leucophlegmatic. He has not slept much for some week or two, and talked a little at random on the preceding night. His pulse 102, running and thready; temperature 102.4°; tongue very moist, but little furred, and slightly swollen. He is not particularly thirsty. There is some tympanites; skin dry; bowels confined. He had vomiting for a day or two at the first commencement of fever, but the sickness is gone, and he does not care for food, though he enjoys cold drinks. The urine somewhat scanty, high-coloured, but loaded with lithates, and non-albuminous. I regarded it as one of those cases of typhoid in which cerebral symptoms were likely to develop very rapidly, in consequence of the brain having been over-excited and not purifying itself from the consequences of its work. Every case of this kind which I have met with which had been treated with stimulants had died, sometimes after violent and continuous delirium, ending in subsultus and unconsciousness for twenty-four hours or more before death.

I advised, therefore, that all alcoholic beverages should be laid aside, and the case treated with salines, bromide of potassium, and milk; whilst we should relieve the loaded bowels by gentle aperients, and watch for complications. The heart sounds were normal, but there were some mucous râles in the chest, which were uncomfortable at so early a stage of the fever.

The case, after two or three days of suspense, ran a satisfactory course; the bowels were relieved by slight laxatives, the restlessness subsided, fair sleep was obtained, the characteristic rash came out about the ninth to the fourteenth day, with slight diarrhoea; the tumid abdomen subsided, the tongue lost its swollen character, and on the nineteenth day (when I saw him for the third time) was clean. The temperature 99.8°, the skin acting freely, and the appetite becoming more keen, so much so that I said to the mother, "In two or three days you will see altogether out of the wood." Two days afterwards I had a telegram, saying, "Come as quick as possible: my boy is dying." I went that afternoon. One of his medical attendants met me at the station, and said at once, "I don't know what has produced the condition, but H. is comatose. He was very excited yesterday, wanted to get up and go out, insisted upon doing various things, was violent in the night, and to-day has been unconscious since 10 A.M." (this was at 4 P.M.). I found him as reported; the conjunctivæ were turgid, and non-resistant when the finger was placed on them, the pupils were contracted to a point, the skin was hot and dry, the face flushed, and the patient took no notice whatever of those about him, but the pulse was full and steady (88), not like that of a dying man, the heart-sounds normal, the breathing steady, but inclined to stertor. The bowels had acted freely two or three times the day before, and there had been a free secretion of urine, and it continued free from albumen. The temperature had been taken several times since my visit two days before. The same night it sank to 98.4°, in the night it was 98° only, yesterday it sank to 97.6°, then in the evening it was 96.8°, and now I find it 96.2°. The medical attendants had viewed this fall of temperature with some alarm, and, acting upon an implied consent to the administration of alcohol, had allowed him to have champagne the day before, with the natural result of a still lower temperature. Since last night he had had eight ounces of brandy in addition to the half bottle of champagne which he had insisted upon having, and which fact the nurses had not communicated to the medical men in attendance. The error arose from my inadvertent consent to his urgent entreaty that he should be allowed a little claret and water on the occasion of my third visit. He had had that claret and water; it gave him a restless night, reduced his temperature below the normal standard, and, from a mistaken idea that alcohol would elevate the temperature, it was administered more freely the next day. The restlessness and excitement were increased; those symptoms were looked upon as reasons for increasing the dose of the stimulant, until at length its narcotising properties

were forthcoming. Perhaps he might have slept off the effects, and have recovered in spite of the treatment, which then in that case would have been regarded as the cause of the recovery. Having carefully considered all the points with his medical attendants in another room, I came to the conclusion that the coma was caused by his so-called remedies. I went back to his bedroom, and giving him a good shake, called out quite loudly, "H—, old boy, how are you?" He heard me, and opening his eyes looked at me with a tipsy leer, said, "Oh! is it you?" and lapsed again into insensibility. I was quite satisfied as to the condition, but felt myself on the horns of a dilemma. However, I asked his medical attendants to leave me to get out of the difficulty without casting any reflection upon their treatment, having pointed out to them the real state of the case. It was my duty to restore the patient, not to make reflections. I saw the mother downstairs; I told her that of course there was jeopardy, but that I thought the danger more apparent than real; that we should discontinue the stimulants which had been given, as not being efficient enough to meet the severity of the case, and that I proposed to give him a more powerful remedy—a single drop of the strongest liquor ammonia every half hour. I advised that he should be made to swallow as much liquid as could be managed in the form of tea and milk and potass water, and with external appliances I hoped to find tomorrow that he had recovered his consciousness, and that he would be restored to her as I had promised on my preceding visit.

There was no idea on the part of the parents as to the error that the nurses, rather than the doctor (for there were two experienced women in charge of the case), had committed, and I had the pleasure the next day of finding my anticipation correct; the coma was gone, headache and *malaise* alone remained, the temperature had risen to 98.4°, there was slight tumidity over the abdomen, the bowels had not acted, but the tongue was moist, a little whiter than normal. He had slept, however, for some half-an-hour at a time after several small doses of bromide of potassium, and two days afterwards was sitting up in bed, and suffering from nothing but a ravenous appetite and general debility.

I have brought these typical cases to your notice for the purpose of showing that one must not always assume that the symptoms in the case are those of the disease which you are called upon to treat. You must ask yourselves whether they are masked by previous treatment; patients and their friends will treat themselves before the doctor is sent for, and in cases in which a consultation is sought for, either at the instance of the medical attendant or of the patient's friends, the former may have exhibited larger doses of powerful remedies than he is aware of, and the symptoms of the remedy may be masking the character of the disease. I have seen this in at least two cases in which belladonna had been given in excess. Narcotics and stimulants are the most usual medicines which have been prescribed, especially the latter. The reduced temperature, the moderately quick pulse, the contracted pupil, the flushed conjunctivæ, the dry skin, and the headache, may all be added to or produced by the remedy used, and may therefore mask the disease and cause erroneous views as to nature, prognosis, and necessary treatment. We can only act upon the information afforded, and if deceived, either wilfully or by ignorance, it is the patient who suffers as well as the reputation of the physician who is consulted.

I am satisfied that it is far better to allow disease to run its course in a natural way, and to pilot the case through the blood storms which the disease may be setting up, rather than by rendering the nervous system less sensitive to the influences of disease by deadening the activity of those nerves, and whilst so deadened allowing disease to establish itself, and so organic change may take place, never to be entirely removed. This appears to me to be the effect of the alcoholic treatment of disease. It is better for the patient to endure the discomfort, and ultimately get quite well, than to be comforted, as it is called, by the use of intoxicating liquor, and so allow real disease to gain a standpoint, instead of treating upset which arises from the functional disturbance caused by the determination of natural laws to assert their predominance, and so to lead to a perfect cure.

MR. P. MILLS has been appointed Librarian to Guy's Hospital. THE Bootle Town Council have increased the salary of Mr. Robert J. Sprakeling, the medical officer of health, from £100 to £120 per annum.