CLINICAL LECTURES

ON

MENTAL AND CEREBRAL DISEASES.

By J. CRICHTON BROWNE, M.D., F.R.S.E.,

Medical Director, West Riding Asylum; Lecturer on Mental Diseases to the Leeds School of Medicine; etc.

I.—BRAIN-WASTING.—*Concluded.*

IF we inquire what these mental symptoms are which usher in brain-wasting, and which it is so important to recognise at an early period, we shall find that they closely resemble the forerunners of dotage or second childishness, and like these are subject to variations. In a majority of cases, however, the first of them is a difficulty and painfulness in fixing the attention. Consciousness is not so readily focused as it ought to be, nor is the information obtained through its attentive exercise as vivid and distinct as it formerly was. The application of consciousness to a determinate object, requires an unwonted effort, and is incapable of being maintained except for a short time. Even the eyes occasionally wander vacantly over the objects before them, as if it required an effort to fix them in a perceptive attitude. E. N. told us that his first warning of mental overthrow and brain-wasting was an inability to read his newspaper in the evening with proper comprehension. He got through his day's work as a mechanic very well, but when he took up a newspaper or book, the words seemed to have no meaning, or one so obscure that he had to puzzle over it some time before he could compass it. After this failure of attention, comes a failure of memory. The restrictions placed on the faculty of acquisition extends to the faculties of retention and reproduction. The later pigeon-holes of memory are but half filled, and their contents slip out of them. The events of yesterday are forgotten, but those of twenty years ago are remembered. The obscure and dim cognitions acquired through a feeble and vacillating attention cannot be conserved, but the vigorous impressions of stronger days can still be recalled. You constantly encounter patients here who can give a correct history of themselves up to the very beginning of their illness, and who from that point remember little or nothing. Along with this lapse of memory at the outset of brain-wasting, there are sometimes curious experiences which I can only call reminiscent spasms—isolated, excruciating retrospections. Suddenly, without prelude, there springs up in memory the representation of some bygone danger, some forgotten sorrow, some misadventure, awkwardness, or folly. It comes with an acuteness and painfulness unusual in mere remembrances. The bygone danger comes back with a pang as if it were a present jeopardy; the awkwardness or folly as if it had been that instant perpetrated, so that the shame of it was still tingling in the nerves. So vivid are these reminiscent spasms, that a start or a sigh sometimes accompanies them. E. N., to whom I have already alluded, tells me that, several times a day, a terrible fall which he once sustained recurs to his memory, and produces a quaking fear, which is, he says, "Just as if some one was stepping over his grave."

As brain-wasting advances, other indications of mental aberration rapidly show themselves. Judgment is crippled, and volition circumscribed. Confusion of ideas occurs. The threads of thought are easily broken, and cannot be gathered up and united again. There is a sluggishness and inertia of the hitherto nimble and active mind—universal and constant, or occasional, and only in certain directions. At this time, too, the affections become frigid or perverted. A mother exhibits no concern about her children, and a father wishes to turn out of doors and disinherit those to whom he had devoted his life. Diseased appetites also arise. There is a craving for stimulants, and a singular pruriency of thought and conversation. This last symptom, however, from some cause which I am unable to explain to you, is much more characteristic of senile decay than of brain-wasting occurring prematurely in middle life.

With still more pronounced brain-wasting, mental disorder becomes still more prominent. The ordinary laws of association of ideas in

time, space, class, etc., are no longer operative, but incongruous processions of ideas occupy the mind. Mental processes become visibly slow and laborious; a question requires to be repeated several times before it can be grasped and understood, while the answer to it is given with cumbrous effort, and is probably inaccurate. The older treasures of memory are involved in ruin as well as the more recent ones, and familiar acts become arduous or impossible. S. H., now in 35 Ward, a barber from Bradford, used to stop in the middle of shaving his customers until told to go on, and wander about the country looking for his father, who had been dead many years. At this stage, there is almost invariably an imperfect appreciation of the passage of time. S. H. told us, when he had been here three days, that he had just arrived two hours previously, and bungled over the day of the week and the month of the year. At this stage, too, if not earlier, emotional disturbance appears. This is sometimes of a fluctuating description, mirthfulness and dejection succeeding each other, and neither of any duration. There is a gleam of sunshine between two tunnels of despondency, and states of feeling change as inexplicably as the contents of a conjuror's box. More frequently, however, there is some degree of persistent melancholia, which remains as vague objectless depression, or shapes itself into delusions. J. L. is low-spirited, he cannot tell why. S. K. is in a similar state, because he thinks himself ruined and destined to die in a workhouse. G. J. is wretched, because his friends have deserted him; and S. W., because there is a conspiracy to put him to a painful death, which he endeavours to escape by jumping, from time to time, off a table or chair, under the singular belief that the ground is soft and pulpy, and will swallow him up if he can only spring upon it with sufficient impetus. Next to the faults of memory and slowness and confusion of thought, depression of spirits, with vague dread and apprehension, is, indeed, the most characteristic mental symptom of brain-wasting. If the disease be not arrested, its further progress is marked by still greater destruction of memory and general bewilderment. Friends and relations are mistaken for each other, day cannot be distinguished from night, and the way is lost in passing from the kitchen to the parlour. J. C., when in bed, imagined that he was in a railway train or on board a steamboat; and W. S., wandering along the gallery, fancies himself promenading a street. Now, too, there are in some cases restlessness, incoherent talking and excitement, chiefly occurring at night. Hours are spent in arranging the bed-clothes or in fraying them out, in purposeless movements or unintelligible cries. After this comes more complete fatuity, a state of torpor, silence, and helplessness, which gradually deepens into death.

The bodily symptoms of brain-wasting are quite as well marked as those mental indications of it which we have just discussed. The earliest of them are general and disproportional weakness and prostration following any exertion—headache of a dull heavy character, generally in the vertex, and a singular pallor of countenance, which is valuable in differential diagnosis, and which remains throughout the whole course of the disease. Instead of the flushed features of general paralysis, or the sallow dusky face of the chronic epileptic, we have here a peculiarly chalky whiteness of the skin, difficult to describe, but readily recognised when once appreciated, and very distinct from the pallor of simple anæmia. It perhaps more resembles the complexion in advanced Bright's disease than anything else to which I can compare it. You may see it admirably illustrated in M. S., in Ward 24, and in E. K., in Ward 21. Whenever mental impairment shows itself decidedly, then other bodily symptoms display themselves. Sometimes cramps are felt in the limbs, or anomalous sensations, such as tinglings, creepings, and a sense of numbness, deadness, and weight, not constant, but recurring from time to time, and lasting at first only for a few minutes. Contemporaneously with these, the appetite becomes capricious, being now impaired and again voracious; the bowels become constipated, and emaciation is apparent. A little later, a convulsive attack occurs, affecting one or both sides, and followed by coma more protracted but less deep than in ordinary epileptic seizures; or more commonly, without convulsions or coma, paralysis is insidiously developed. Muscular power is much diminished in one limb or side, or in all the limbs; or one eyelid droops, or the mouth is drawn down at one angle, or the tongue is tremulous, and is pushed to one side. Articulation is altered, generally becoming slow and laborious, and almost invariably the pupils are unequal. Both are, perhaps, somewhat dilated, one slightly more so than the other, and both are exceedingly sluggish in their movements. At the same time, dimness of vision, soundings in the ears of very varied character, and peculiar tastes and smells, are complained of. The next step is more distinct hemiplegia, accompanied, perhaps, by a return of the convulsions. In many cases, however, convulsions never occur at any period, and in others they are confined to an early stage of the disease. At this time, there is quickening of the pulse, which

ranges from 90 to 120 per minute, and is also feeble and compressible. The acceleration is nearly as great in the morning as in the evening; and this constitutes a point of difference from general paralysis of equal duration, in which the evening pulse would average ten beats higher than that of the morning. The temperature in brain-wasting is, as a rule, slightly depressed, and is much more uniform than that of general paralysis. In three cases of brain-wasting, we found the average of twenty days' observations to give a morning temperature, at 11 A.M., of $97\frac{3}{4}$, and an evening temperature, at 9 P.M., of $98\frac{1}{2}$; whereas in five general paralytics, we found the average of twenty days' observations to give a morning temperature of $97\frac{3}{4}$, and an evening temperature of $99\frac{1}{2}$. In looking at the charts of temperature, you will be at once struck by the much greater evenness of those having reference to brain-wasting. We have none of those sudden fluctuations of temperature, now rising to $100\frac{1}{2}$, and then sinking to $94\frac{3}{4}$, which seem to be characteristic of general paralysis.

As brain-wasting progresses, emaciation does so also, *pari passu*. The subcutaneous fat is absorbed, the muscles grow soft and flaccid, and the skin has a shrivelled appearance. If you glance at the weight-book, you will see that G. H., suffering from this malady, fell, in three months, from 148 to 128 lbs.; and J. P., in nine months, from 169 to 155. A steady loss of weight is incurred as long as the wasting goes on.

In the final stages of brain-wasting, either the hemiplegia becomes more complete, or the general muscular weakness more extreme, until at last the face is devoid of expression, and the body almost incapable of voluntary movement. Control over the sphincters is lost, and occasionally there are jactitation of the arms and legs. It is worth remarking that, in the hemiplegia of brain-wasting, there is not nearly as much of the predominance of the flexor over the extensor muscles in the paralysed limbs, as in other forms of hemiplegia. Towards the close of brain-wasting, we have general anaesthesia, so that pricking, pinching, and tickling, cause little inconvenience. We have impairment of the sense which confers an appreciation of temperature, so that the skin may be burnt or scalded under the belief that it is only exposed to a moderate warmth. We have retardation of the circulation in the small vessels, so that the surface, especially towards the extremities, is cold and of a livid hue. We have increased friability of the tissues, so that extravasation of blood or oedema takes place on the application of the most trifling violence. And we have an abnormal state of nutrition pervading the whole system, so that the tissues are wasted; there is excessive desquamation of epithelium, and the effects of bruises or wounds are very tardily removed. In this miserable state, the slightest attack of bronchitis or congestion of the lungs, or diarrhoea, extinguishes the flickering life. The proper termination of the disease, however, is in coma, rapidly eventuating in death.

As regards prognosis, I need scarcely announce to you that brain-wasting is a very formidable disease, and that, in a majority of instances, it has a fatal issue. But neither need I tell you, who have watched the practice of this hospital, that it is not necessarily mortal, but that, if taken in time, it is often amenable to treatment. You have seen many patients in this asylum, presenting all its pathognomonic features, who have recovered and gone home quite well. You have seen many who have reached almost the last stage when received here, and who have undergone remarkable improvement. The only rules which I can give you to guide you in prognosis are these, and I am well aware that they are very vague. 1. Women recover from brain-wasting more frequently and rapidly than men. 2. The earlier the age at which brain-wasting occurs, the better is the prospect of recovery. 3. The more decided the paralytic symptoms, the worse is the prospect of recovery.

What, then, is the treatment under which favourable results may be obtained in cases of brain-wasting such as we have been to-day studying? What has been the course pursued in those cases which some of you have watched recovering here? It has been almost invariably the same, and has consisted in the administration of cod-liver oil and the hypophosphite of soda, with the occasional addition of small doses of tincture of opium and sulphuric ether. We owe a debt of gratitude to Dr. Radcliffe for pointing out the value of cod-liver oil and the hypophosphites in debilitating nervous diseases. They supply the essential elements of nerve-nutrition in an easily assimilable form, and are unmistakably beneficial in cases of brain-wasting. A tablespoonful of cod-liver oil, and fifteen grains of the hypophosphite of soda, given twice or three times a day, at the outset of such a case, often arrest at once the downward tendency, and induce restoration of mental and muscular power. Sometimes, when these remedies seem ineffectual, or when they are slow in their operation, doses of from five to fifteen drops of tincture of opium and sulphuric ether, twice a day, expedite their action, besides conferring independent benefits. The opium

gives, as it were, a fillip to cerebral nutrition, and thus diffuses a favourable influence through the whole economy. Under its use the tongue cleans, the appetite improves, the bowels become regular, the muscles strong and steady, and the mind clear.

Along with the medical treatment of brain-wasting, dietetic and moral treatment must be carefully attended to. A liberal and highly nourishing diet, with a regulated quantity of wine in some cases, must be allowed. Fresh air and freedom from anxiety and harassment must be secured. The mind must either be kept in a state of entire rest, or only light and agreeable occupation permitted.

Let me recall to you one or two cases of brain-wasting which you have seen successfully treated here. S. W., aged 53, a labourer from Bramley, was admitted on May 25th, 1870. He was said to have been insane for ten months, having become weak-minded and so much depressed as to have attempted suicide. His brother was, at the time of his admission, an inmate of this asylum, labouring under brain-wasting. On examination, S. W. was found heavy and demented. He could not state his own age, the day of the week, or the season of the year. He drawled out that his head was empty, and that he was afraid of the end of the world. He was very thin, his eyes sunken, his skin of a ghastly pale colour. His pupils were unequal, the right being the larger. His tongue was very tremulous, and his limbs were jerking in their movements. The grasp of his hand was feeble. He was ordered cod-liver oil and hypophosphite of soda, with extra diet. In one month improvement was reported, the inequality of the pupils being less marked and the muscles stronger and steadier. In three months his mind is said to be clear and collected, and his bodily health excellent. On October 4th, 1870, he was discharged recovered.

J. W., aged 66, a waterman from Leeds, was admitted December 14th, 1869. His father had died of paralysis. He himself had always been a sober steady man, but had experienced many misfortunes and much hard work. Six months before his admission he became oblivious, and, as he expressed it, he could not think of things. About the same time he had severe pain in the head. After that had gone on for three months, he gave up his work and began to stroll about without object from place to place. He next began to imagine that the devil had taken possession of him, and under that conviction refused his food. When brought here, he was in a dull and perplexed state of mind; he did not know where he was, nor where he had come from, and was aware that his memory was not to be trusted. He alleged he was unhappy because the devil had got into him, and was afraid to sleep because something came and knocked him about in his dreams. He was much emaciated; his face was pinched and hollow; his pupils were equal, but dilated; he complained of shakings in his limbs, and a feeling of coldness and some loss of strength down the left side. The heart was feeble and distant, and the pulse 90 and compressible. Cod-liver oil in half-ounce doses, with hypophosphite of soda, was ordered, and afterwards ten-minim doses of laudanum twice a day. This treatment was continued for four months, and produced immediate and satisfactory effects; amelioration gradually took place. Depression of spirits and delusions vanished, memory became reliable, and bodily vigour returned. After a severe attack of asthma, he was discharged recovered on August 8th, 1870.

M. S., aged 52, widow, from Halifax, was admitted on May 2nd, 1870. She was stated to have a sister idiotic, and to have been all her life a woman of violent temper and excitable disposition. After much toil in providing for her family, she had been suffering for a month prior to her reception here from sullenness, stupidity, and obstinacy. On admission, she was found reserved and weak-minded; she was unable to remember how many children she had, or to say where she was, and expressed no interest in her own future. Her complexion was exceedingly pale; her pupils were dilated, the right being much larger than the left; her mouth was drawn to the left; and there was general muscular weakness, most marked on the right side. There was pain in the left arm; her articulation was slow and deliberate, but distinct; her tongue was coated with a dirty white fur; and her pulse was feeble. She was ordered cod-liver oil and hypophosphite of soda, which she took for some time without apparent relief. Indeed, she seemed to become more feeble and stupid, sitting for days without moving or speaking. At the end of a month, tincture of opium was added to the treatment, fifteen minims twice a day. Improvement was shortly perceptible. She became more active and animated, shortly engaged in work, conversed intelligently, and was discharged recovered on February 25th, 1871.

These cases illustrate the treatment which has been here found most useful in those cases of brain-wasting which we have been considering.