

drachm doses of bromide of potassium twice daily. This state of matters continued unchanged until a month after his admission, when his excitement suddenly disappeared and he became torpid, apathetic, and extremely feeble. His gait was tottering, nor could he walk unsupported. His skin was cool, being usually about 99°. His breathing natural, but pulse slightly quickened. He took food regularly. His face was flushed. For a couple of days he remained in an utterly prostrate condition, lying motionless in bed, making no response to questions, but not comatose. There was diminished sensibility over right side of body, most marked, however, in the arm. He remained thus for a week, gradually developed symptoms of hypostatic pneumonia, and sank five weeks after admission.

The following is an abstract from the post-mortem records:—

“The skull somewhat thick, of normal density, sinuses contain dark clotted blood. There is considerable wasting over all the lobes, especially the occipital. The membranes strip with difficulty, but nowhere is the cortex torn on their removal. There is slight opacity over the frontal and parietal regions. The pia mater is tough, thick, and congested, of a deep bluish appearance. The whole brain weighs 1461 grammes. The grey matter is rather thin. There is a distinct mottled congestion of the white matter, but with this exception nothing abnormal was presented in the naked eye examination of the cortical or medullary regions. There was no special focus of softening throughout the hemispheres, and the ganglia at the base were healthy. Three ounces of fluid escaped on removal of the brain. Microscopic examination revealed a condition of disseminated sclerosis of the white matter. The patches of sclerosis were very numerous and in constant connection with the vessels. There was abundant proliferation of the nuclei along the course of the vessels, and deposits of hæmatoidin crystals in the sheaths. The grey matter was unaffected, the nerve cells appeared normal, but the sclerosed patches extended up through the medullary strands as far as the spindle-cell or deepest layer of the cortex.”

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*A Peculiar Case of Melancholia, with Cancerous Tumour of the Middle Lobe of Brain, Disease of Kidneys, Liver, Pylorus, &c.* By T. S. CLOUSTON, M.D.

*Specimen shown at Edinburgh Quarterly Meeting.*

*History.*—A. B., æt. 58, a lady of good education, cheerful and frank disposition, domestic and industrious habits, who had enjoyed good health, and had a family of several children. Temperament not neurotic. No hereditary predisposition to insanity. Predisposing cause of attack seemed to be domestic anxiety and a sudden alarm of fire. Had been falling off in flesh, appetite, and

strength before mental attack. But became depressed for some weeks before admission, and soon became possessed with the delusion that she was very wicked, had syphilis, and would infect those round her. She refused food, was sleepless, and imagined she had no passage in her bowels.

Admitted into Royal Edinburgh Asylum 22nd September, 1876.

*State on Admission.*—Extreme depression, says she is very wicked, is lost, has syphilis, and is not fit to be here. Has an anxious, worn, pinched expression of face. Cannot be interested in anything outside herself. Memory seems fairly good. Is coherent, and can answer questions: very thin, colour very bad. Has enlargement of the thyroid body, with prominent eyeballs. No paralysis or anaesthesia. Tongue slightly coated. Bowels very costive. Pulse 88, weak. Temp. 98.3°.

*Abstract of Progress of Case.*

September 23rd.—Patient was ordered a tonic—quinine and hydrochloric acid, and to have two glasses of sherry daily.

For a time patient showed a slight improvement, but this proved very temporary, and the melancholic condition became aggravated. She slept badly, occasionally having a good night, but generally being restless, with broken, disturbed sleep. The appetite was much impaired, patient taking very little food, and ultimately refusing food altogether, so that on one occasion, in November, she had to be fed with the stomach pump. The tongue was clean, but dry; the bowels were costive, and had to be regulated by occasional doses of compound liquorice powder and other aperients. Patient had a pinched, anxious expression of face, and lost flesh. Mentally, she was in a condition of great depression, with numerous delusions. At admission, and for some time afterwards, the delusions were of the simple melancholic character; she fancied that she was lost to all eternity, that she had misconducted herself in youth, and that she was now suffering from a disease which she had contracted at that time; that she had ruined her husband and family, and that there was no place for her at home at all. Along with this there was considerable enfeeblement of mind; she was childish, querulous, and unreasoning in her conduct; and her memory was much impaired, especially as to recent events. After having been in the asylum for weeks she would maintain that it was only one long day since she came; she complained that the days never came to an end, and that she was compelled to take an extraordinary number of meals in each day. When asked to go to dinner, she would querulously reply that it was not half-an-hour since she had taken breakfast. She showed little interest in what passed around her; could be got to take little or no part in work or amusements, but was always harping upon her own miserable condition, and in conversation giving ready expression to her delusions. She was very disinclined to

take the usual open-air exercise, and would meet the doctor on his morning visit with the constant request that she should be allowed to remain in the parlour, as she was too weak to walk; when compelled to go out, she thought that she was being treated unkindly, and this idea at times almost amounted to a delusion that she was persecuted by the attendants and when visited by her friends she would frequently make ungrounded complaints against them.

With occasional slight variations from time to time, patient's mental condition during the winter continued much the same as that noted above—depression and enfeeblement, with delusions of a melancholic type. But during this time her physical health was becoming greatly impaired, she took her food badly, and only with much coaxing (though the stomach pump did not again require to be used); she was restless at nights; the bowels were still costive more or less. There was great emaciation; a slight jaundiced or yellow tint of the conjunctiva; and a markedly cachectic appearance, such as to make one at once suspect that the patient might be labouring under organic, and possibly malignant, disease. From time to time repeated physical examination of the thorax and abdomen was made with the object of detecting any organic disease that might exist; but no evidence of such disease could be found. No enlargement of the liver could be made out. The urine was examined particularly for bile, but only the faintest trace was found; beyond frequently containing a very large quantity of urates, the urine indeed showed nothing abnormal. It was difficult to make a satisfactory examination of the organs, as the patient complained bitterly whenever she was touched; and her statements as to the parts in which she felt pain or tenderness on pressure were incoherent, and could not be relied on.

April 12th.—Ordered compound cod liver oil emulsion, with pepsine and hypophosphite of lime. The marasmic condition still continued, and at one time, in the beginning of May, it seemed as if the patient were actually dying. But after this, again, her physical health seemed to improve slightly, and mentally she was for a time less acutely melancholic. She still laboured under delusions of the same melancholic character as before, but did not so constantly give expression to them.

On the 10th of July, patient met with an accident, falling over some stairs at the entrance to the corridor. She complained of great pain, and on examination there were found some of the appearances of intra-capsular fracture of the neck of the right femur. For this the long splint was applied, at Professor Annandale's suggestion, and the patient was confined to bed for six weeks. During this detention in bed, patient seemed to be somewhat better—she was altogether quieter, slept better at night, and took her food better and without the constant querulous complaining which she used to exhibit previously; and the delusions, though still of the same melancholic character,

were much less prominent than before. But at this time the bowels were very much confined, requiring the frequent use of purgative medicine; and the stools were pale-coloured and very offensive, though firm in consistence. After the removal of the splint on the 20th of August, there was found to be still some eversion of the knee and foot, but no shortening of the limb. Patient, however, seemed unable to use the limb. Altogether the patient seemed to have made a fair recovery from her accident; but very soon the marasmic condition became aggravated, and in spite of the use of a most nourishing diet (eggs, milk, beef tea, custards, and whatever else she would take), and of stimulants (sherry, and afterwards brandy), patient grew rapidly weaker. Soon she was unable to leave her bed; a bed-sore formed over the sacrum, and in spite of treatment, continued to enlarge, with great offensive discharge. She took her food readily, but only in small quantity; mentally she was still depressed and enfeebled, but her former delusions seemed now greatly in abeyance, and the burden of her conversation now was that the attendants would treat her with patience, as she would not trouble them long. Great oedematous swelling appeared in the feet, and gradually extended up the legs. The pulse became small and very thready, and latterly could sometimes scarcely be felt at the wrist. The bowels at this time were much more regular than previously, and the stools more natural in appearance. Patient grew weaker and weaker, and ultimately sank October 15th, 1877.

Autopsy 24 hours after death.

Body much emaciated. Extensive bed-sore over sacrum.

*Brain.*—Vessels at base atheromatous. Vertex healthy-looking. There was a tumour, the size of a hen's egg, growing from upper part of petrous portion of left temporal bone, weighing half-an-ounce, and attached to the inner table of the bone, which was somewhat softened. The tumour was encysted in the brain matter, but not attached to it, lying quite free in a cup-shaped cavity. The contiguous brain substance was flattened out and somewhat softened.

The cancerous mass on microscopic examination was found to consist of small cells, lying in the meshes of a delicate stroma, altogether much resembling brain matter, but distinguishable from it by the absence of the characteristic larger brain cells of the grey matter. The brain was not cut up, but kept as a specimen.

*Heart.*—Valves competent. Atheroma of coronary arteries—ulcerating atheroma of aorta—atheroma of mitral valve. Substance healthy.

*Lungs.*—Normal.

*Abdomen.*—There were several small secondary masses of cancer at the pyloric end of stomach, the orifice of which was constricted. No secondary cancer in liver, kidneys, glands, or other organs. The splenic artery was enormously tortuous and dilated.

*Liver* was fatty, with thickening of the coats of its arteries and bile

ducts, and considerable increase of fibrous tissue round them. The fibrous tissue round the bile ducts was deeply stained with bile even to the smallest duct.

*Spleen.*—Normal.

*Kidneys.*—Right Kidney: Full of very large cysts; substance otherwise normal. Left Kidney: Marked cystic degeneration. The renal substance almost gone, its place being taken by numbers of cysts, many of them containing dark foetid fluid matter.

No fracture of femur had occurred.

*Commentary.*—The questions which occur to one in regard to such a case, are these—

1. What was the probable duration of each of the bodily diseases?
2. What was the real cause of death?
3. Can any direct connection be traced between the mental conditions and the bodily diseases?

In regard to the duration of each of the distinct diseases she had, the only guides one has in forming an opinion are the pathological appearances after death. Not one of them produced unequivocal symptoms during life by which they could have been certainly diagnosed, or their course determined. The cystic condition of kidney seemed undoubtedly to have been the first departure from health. But then, on admission, it did not cause albuminuria, œdema, or any other symptoms referable to renal disease. It was only, in fact, within two months of death that this was so.

The contraction at the pyloric orifice of the stomach must have existed some time, but there are no data for saying how long. There is fair reason, however, for connecting this with the loss in flesh, falling off in appetite, and discomfort in the region of the stomach and bowels, as that came on in the latter months of 1876, and preceded the insanity. The liver had clearly been disordered in its functions, and obstruction of its ducts had been suspected by us during her disease and the urine examined for bile, a trace being found in it. In fact, I had a strong suspicion of obstruction of its ducts from the mental symptoms being similar to those which had been present in such a case that I once had under my charge.

The cancerous tumour of the brain had been utterly unsuspected, and had produced no symptoms whatever, either sensory or motor. Such a tumour as that I cannot imagine would have grown to that size within the skull, where there is so little room for ready expansion, in less than twelve months, and

probably it took a longer time than that. My experience of such tumours would lead me to say that its duration was over a year.

The chief characteristic of the melancholia was an idea that every one was finding fault with her, and she always spoke in a deprecatory tone—"You must not blame me." "You mustn't worry me to take more." "I really have done as well as I can." "Don't cause me pain." "You won't ask me to go out to-day," these things being said when no one was near her.

The cause of death in this case was really the exhaustion and failure of bodily nutrition, caused by the presence of all the diseases and morbid states of mind and body. Their combined evil effects had reached that point which was incompatible with life.

The mental symptoms were from the beginning of that type of melancholia that has been associated with disorders or disease of the alimentary canal. The cry of the organism for suitable nutriment, which is revealed to consciousness as appetite, was quite abolished, and there was instead, at one time, a strong repugnance to food. Digestion was impaired. There was clearly strong feelings of organic discomfort after eating. The bowels were very costive, and her delusions exaggerated their costiveness into months between each passage of her bowels. Her abdomen and abdominal muscles felt hard and stretched. The hyperæsthesia she had was referred for the most part to her bowels. With all this there was extreme emaciation, though plenty of nourishment was taken into the stomach.

There are undoubtedly certain markedly abdominal cases of melancholia in which the innervation of digestion and alimentation is impaired. Just as the normal feeling of well-being, which is the mental sign of general organic health, is abolished in melancholia, so, as a part of this and a very special and distinctive part of it, in such cases the desire for food and drink, feeling of pleasure in taking food, the satisfaction after it, the organic comfort which the normal peristaltic action and movement of the bowels give, are all abolished, and painful states take the place of the pleasurable ones. This case was a very exaggerated example and type of such cases. I think it is beyond a doubt that we shall find that the cause of all this is a disordered working of that portion of the brain which presides over the function of alimentation, and secondarily in a disordered working of the organic nerve ganglia that so



abound in the abdomen—the sympathetic system of nerves, the semilunar and visceral ganglia, and the small nerve ganglia in the coats of the bowels. Ferrier thinks that the posterior lobes of the brain are the seat of the organic brain functions but there is no proof of this, and the lower portions of the middle lobes are yet quite unappropriated as to localised functions. It may be that their functions are those of presiding over and regulating alimentation and digestion. The real cause of abolition of the normal food appetites in so many diseases and states of disordered health and their perversion in other instances is unknown, but beyond a doubt we must refer them to some central cause in the brain. This case might be supposed to point that way.

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*Case of Right Hemiplegia resulting from Closure of the Left Carotid Artery due to Thickening of Fibrous Tissue around it, caused apparently by Irritation of a Hypertrophied Clinoid Process.* By J. J. BROWN, M.B., Royal Edinburgh Asylum. (Specimen shown at last Quarterly Meeting of the Association in Edinburgh.)

E. W., female, æt. 60. Admitted on the evening of Oct. 11th, 1877.

No history could be obtained beyond the facts stated in the medical certificates, which were that the patient had been excited, and was found wandering about the streets in a half-naked condition.

On admission she was slightly excited and somewhat enfeebled. She talked in a rambling and childish manner, was restless, wandered about the ward without any apparent purpose, but was in no way violent. When walking patient inclined to the right side, and the right leg seemed a little weaker than the other, but no other distinct motor paralysis could be detected, and the sensation of the right side was unimpaired. There was complete amaurosis of the left eye and incomplete of the right, but patient could give no account of how it came on, &c.

*Lungs.*—No dulness on percussion; sibilant râles were heard all over both, and patient complained of cough, accompanied with expectoration.

Pulse 84. Temperature 98·4° F.

Other organs normal.

*Oct. 12th.*—Patient slept well during the night, this morning talks quite rationally, seems free from excitement, but is somewhat enfeebled. She states that the sight of the left eye has been lost for some months, that it gradually became affected, and that now the sight of the right eye is affected in the same manner.