

Cases in which Mental Derangement appeared in Patients suffering from Progressive Muscular Atrophy. By T. W. MCDOWALL, M.D., Assistant Physician, Inverness District Asylum.*

In his clinical lectures Mr. Syme used to observe that cases may be interesting and important either because they are examples of diseases frequently met with, or because they are instances of maladies of unusual occurrence; the common cases deserve study and attention simply because they are common, whilst the rare cases call for special investigation because we may thereby discover facts which may explain phenomena in cases of every-day experience. The two cases which I am about to describe are examples of a rare combination of nervous diseases; but any remarks on this and other points must be deferred until the cases themselves have been described.

The first case, J. B., was admitted on 13th June, 1868; he was unmarried and a baker, but had been unable to work for a very considerable time. He had not been "strong minded" for years, but the attack of mania which necessitated his seclusion had only existed about four weeks. His friends believed that the acute attack depended upon feebleness resulting from the muscular atrophy. He was described as free from epilepsy, not suicidal, but had threatened injury to others, though really he could harm no one, his arms being quite powerless. Concerning his family history little is known; it was stated that none of his relatives had been insane, which may be true; but it must be stated that a paternal uncle was a very nervous and peculiar man, though quite able to perform responsible duties, in his own way.

The first medical certificate states that the patient is incoherent, dances about violently, is intractable, and with delusions about property, marriage, and many other subjects; he is destructive, breaks windows and articles of furniture, and had threatened to injure persons. The other certificate is much to the same effect—that during conversation the patient became excited, danced and sang, and spoke incoherently as to property and money; stated that he was about to be married to several persons. The patient had been very excited and unmanageable for several weeks, at times very noisy, rude and profane in his language, breaking windows, furniture, &c., and went about the streets attracting the notice of the public by his talk and behaviour.

* I had the good fortune to observe these cases when resident in the Perth District Asylum; and I have to offer my sincere thanks to Dr. McIntosh for his kindness in allowing me to publish them. I have also to thank Dr. Wilson for furnishing me with the necessary extracts from the case books, as I unfortunately lost my notes of these cases some time ago.

When admitted the patient was in a state of great excitement and exaltation; but no description can convey an idea of his constant restlessness and the variety of his delusions. All his mental symptoms, however, agreed in one particular—they were of an extraordinarily grandiose character. He stated that he was the King; then that he was God; that the whole world was his, and that he would share it with those speaking to him; that he was to be married to the Queen, and thousands of women besides; that he would make all his friends princes, &c., &c., &c. He also said that he was a minister; he prayed and repeated psalms, but if interrupted swore abominably. So he went on incessantly, until foam collected on his lips and his tongue became quite parched. So restless was he that he required an attendant for himself. Being unable to use his hands, he broke windows with his head, saying that he would put in gold ones, and thus encourage trade. When admitted, his digestion was much deranged and his appetite poor. Concerning the extent of the muscular disease, it may be stated that in both arms the atrophy was very marked; indeed the muscles appeared to have disappeared, producing complete paralysis; when the patient wished to move these limbs he required to swing the whole body. The muscles of the trunk were free from disease, except the great muscles passing from the chest to the upper extremities; these were much affected, especially the pectorals. The lower limbs were quite free from the disease.

It is unnecessary further to describe the condition of the patient on admission; but to give a correct idea of the progress of the case the following extracts from the day-book will be necessary:—

18th June. He has greatly improved since admission. The first night after admission he got Tr. Cannab. Ind. m. xlv., but without any effect, for he spent the whole night in talking, laughing, praying, swearing, &c. Next day he broke several panes of glass, was merry, and extremely talkative. In the evening he got mur. morph. gr. $\frac{1}{4}$, injected; after this he slept all night. Since then he has been decidedly quieter during the day, and at night always gets a few hours' sleep by the use of opiates. His appetite has also improved, but is not yet quite satisfactory; the tongue is still considerably furred. During the day he still rambles in his talk, and makes extraordinary remarks on everything he sees. He is very fond of singing psalms and repeating the Lord's Prayer in a very loud tone. During these performances he goes on his knees, and is evidently pleased because his neighbours pay attention to his pranks.

23rd June. Although decidedly quieter during the day, he is still noisy, as a rule, at night, in spite of various draughts at bedtime. During the day his tongue is never quiet, but his shouting is not quite so loud. He takes his food better.

5th July. Yesterday he was particularly noisy, in fact as bad as when admitted. He has slept little for some nights past until last night. He generally requires morph. acet. gr. $\frac{1}{4}$ injected, besides

Tr. Cannab. Ind. ʒss. as a draught to make him moderately quiet for two or three hours after going to bed. Although his tongue is much furred, he takes his food very well.

10th July. He is decidedly quieter during the day, and occasionally sleeps without any narcotic at bedtime. His appetite is still very good. To be tried out with the walking party.

15th July. He has been very noisy and troublesome since yesterday; he slept none last night, but shouted so violently that his voice is now nearly gone. Ordered Ol. Ricini, ʒj. At bedtime half-a-grain of the Morph. Acet. was injected with good effect; at 10 p.m. he was asleep.

24th July. He has again been rather noisy since yesterday; did not sleep well last night. Ordered Ol. Ricini, ʒj.

4th August. He has been more noisy during the past two days. He has occasionally vomited a few mouthfuls of his supper. Ordered Ol. Ricini, ʒj.

7th August. All narcotics have been omitted for some weeks, and the patient has been, on the whole, tolerably quiet until the last few days, during which he has been exceeding restless. For the last two nights he has been noisy and restless, constantly talking and swearing, also pushing about his clothes in all directions. Ordered full opiates for a night or two. His stomach appears somewhat irritable, as the patient has occasionally rejected more or less of his supper. Ordered tea and bread for a few evenings.

25th August. The patient continues moderately quiet, but all his grand ideas remain as before. His stomach appears quite recovered, but the patient makes himself sick by chewing rubbish. As he cannot use his hands he kneels down and picks rags, grass, &c., off the ground with his teeth.

8th September. He has been somewhat more restless during the last few days, and at night has not slept well. Ordered Tr. Cannab. Ind.

1st October. For the last ten or fourteen days there has been considerable oedema of the ankles and, to a slight extent, of the eyelids. The urine contains no albumen, but there are triple-phosphates and dumb-bell crystals of oxalate of lime. He continues very restless and talkative during the day, but generally sleeps well at night. He will remain in bed for a few days, as he appears somewhat exhausted. It may be noted that, from his almost constant incontinence of urine, his scrotum and surrounding parts have become excoriated. Ordered to have the parts frequently bathed, and spirit lotion applied.

4th October. His legs are now well, and he will leave bed tomorrow. He has a bad habit of regurgitating his food, spitting it on the bedclothes, and licking it up again.

7th November. The cold weather appears to be telling on him very severely. Two days ago his face was extremely pale and pinched, and his legs were so feeble that he could scarcely stand; he

also took very little food. Yesterday he remained in bed in a very feeble condition. His scrotum is acutely inflamed. He is unable to take his ordinary food, and even has difficulty in swallowing beef tea and wine. His urine contains a small quantity of albumen, but is free from oxalates and phosphates; there are no tube casts, but numerous renal epithelium cells. There is again marked œdema of feet and ankles.

20th November. Patient did not sleep last night even after getting sol. morph. mur. m. xxx. This morning he appeared very weak and exhausted, and had great difficulty in swallowing any food. At 2.15 p.m. he suddenly became pale and unconscious, and appeared dead; but fully a minute afterwards he gave a deep sigh and expired.

All persuasion failed to persuade his relatives to agree to a *post-mortem* examination.

The second case which I have to report is, in many respects, a marked contrast to the preceding, being the best instance of Monomania which ever came under my observation.

This patient was admitted on 19th December, 1867; he is unmarried, and has resided for some years back with his sister, being unable to support himself on account of his feeble health. For a few weeks previous to his admission, however, he had been an inmate of the P— Infirmary, hoping to obtain some improvement in his physical condition. He had been insane for five or six months previous to admission, and had exhibited a suicidal tendency, having threatened to drown himself. The medical certificates were to the effect that he suffered under the delusion that his sister attempted to poison him by putting washing powder and other substances into his food. When admitted he was rather peculiar in appearance, his face being exceedingly pale and surrounded with a large quantity of black, shaggy hair; his body was much emaciated, and his arms dangled about in every direction, whilst his trunk was maintained in a stiff, somewhat military position. In conversation he was very correct and polite; talked about his past life and sufferings in a very precise and moderate manner, and remarked that he did not expect any improvement physically, and that there was nothing wrong with him mentally. When told that he would, probably, meet some of his old acquaintances, such as Mr. S —, he immediately remarked—“ But he suffers from some mental affection.” When questioned about having refused food, he said in the Asylum there could be no danger in taking what was offered to him, and he now believed his charges against his sister to have been unfounded, and regretted having made them, though formerly he believed his accusations to be founded on fact. When examined, it was found that his bodily health was very feeble, and that the patient laboured under progressive muscular

atrophy. The muscles of the upper extremities had almost disappeared; those in the neck were also greatly affected, so that in these parts he had almost no muscular power. His lower limbs were in fair condition. He could walk without pain or difficulty, and could chew and swallow easily.

When admitted the patient gave a full account of the progress of his physical disease; it is exceedingly interesting, and as follows:—When twelve years of age he had typhus fever, but made a rapid recovery. Having served an apprenticeship to a lawyer, at nineteen years of age he went to Glasgow as a clerk. Three years afterwards he had a chancre, but having placed himself at once under medical treatment, he never had constitutional symptoms such as sore throat, eruption, &c. After remaining in Glasgow eight years, during which time he attended classes at the University, and worked very hard, he had to give up his situation on account of great exhaustion produced by over-work as head-clerk in a large office. Having somewhat recruited his health by rest he returned to Glasgow, and managed a law business for nearly four years. He then removed to another situation, where he remained three years, but having received a tempting offer to go to London to manage a Scotch law business, he went there. He speedily discovered that he had been deceived, and gave up his situation, getting almost none of his salary. He now found himself very poor; but being unwilling to return to Scotland, he took another situation, but it turned out almost as badly. From April, 1863, to November of the same year, he had almost nothing to do, and suffered great hardships from want of food. As a rule he paced the streets during the whole day, often utterly exhausted, for he seldom, for weeks at a time, had more than a cup of coffee and a small piece of bread daily. In August he noticed for the first time that the ring finger of the right hand dropped when writing. By this time he was much emaciated, particularly in the right fore-arm. By the end of October the muscular weakness had progressed so rapidly that he could scarcely hold the pen, and his writing was tremulous. In November he obtained a good situation, but was unable to retain it as he could not write. In January, 1864, he returned to his native place. At this time his lower limbs were totally unaffected, and he had power enough in his arms to carry two heavy portmanteaus a distance of six miles. He could also perform coarse muscular movements (*e. g.*, grasping) pretty well, but was unable to do such operations as buttoning, &c. His left arm continued pretty strong, and he used his left hand to steady the right when shaving, and to press the right thumb against the pen when writing. He remained with his sister, and for eight months he had no medical advice; but as the weakness in the arms and elsewhere was gradually increasing, he at length put himself under the care of a physician. The patient insists that this gentleman treated him for disease of the spine, giving him tonics, blistering his neck, and applying iodine along the spine. Whilst this treatment was continued his condition became

worse. Since the date of its discontinuance he has occupied his time in walking exercise, and indoors, in reading and teaching phonography, &c., &c. He states that at present he is on the whole thinner, but that the muscular power of his arms and neck is somewhat greater than before. When admitted he laboured under a slight attack of influenza; heart, normal; pulse 96 of fair volume and strength; the tongue moderately clean, but very much fissured and painful. This condition of the tongue he attributed to the action of the poison given by his sister.

It is unnecessary to give here all the notes of this case, but the following may be given as indicating his general condition:—The mental condition of this patient remains unimproved. His delusions as to his sister attempting to poison him remain firmly fixed, but he speaks on the subject as seldom as possible, as it evidently causes him great mental pain. Being a man of superior education he finds time hang very heavily on his hands, and tries all manner of plans to cause it to pass quickly and pleasantly. He reads a great deal, teaches shorthand occasionally, and is particularly fond of chatting with his more intelligent neighbours. He often expresses a strong desire to be discharged from the asylum, as he is confident that he could maintain himself by teaching phonography. He says he would at least make a great effort, and should that fail he would make sure that he never returned to an asylum; plainly hinting that he would commit suicide. His bodily health has certainly improved during his residence here; he is decidedly stouter and more able to withstand cold and fatigue. Muscular power in the parts previously affected has not increased, but it certainly has not decreased, and no other region has become affected. He is habitually constipated, and if this be not relieved in time by a laxative, he then suffers from headache, &c. Shortly after admission he was put on cod liver oil and ferri ammon. cit., and these drugs were continued for some months with decided benefit to the patient's general condition. It may be added that when his bodily health becomes deranged, as during an attack of influenza or from constipation, he surely becomes dull and unhappy, reflects on his blasted hopes and melancholy prospects, &c. Being quite unable to feed himself, he is fed by the attendant: his diet consists of the usual slop food, with beer, egg, and other extras.

The preceding description of the patient, though written in 1869, is still applicable in all essential respects.

Much of the value that an account of these cases might possess is lost from want of any *post-mortem* examination of the nervous centres. They appear, however, worthy of record as they are examples of a decidedly rare combination of nervous disorders. So far as I have been able to discover, no special attention has been directed to the fact that cases of muscular atrophy are liable to be complicated with mental de-

rangement. Dr. Tuke, when referring to affections of the head and spine as physical causes of insanity, states that in 1852, of 1353 admissions into the Bicêtre and Salpêtrière, 27 were attributed to apoplexy and 31 to paralysis, being a proportion for both together of 4 per cent.* Dr. Roberts, who has devoted so much attention to progressive muscular atrophy, does not indicate that mental derangement is a common complication of such cases, but, on the contrary, he distinctly states that "the general health is usually quite unaffected, the intelligence quite clear," &c.† I have also looked through the "Annales Médico-Psychologiques," but have failed to discover cases similar to those I have recorded. It may, therefore, be concluded that such cases are unusual.

The case of J. B. resembled in many respects one of general paralysis; indeed, the mental characteristics were exactly what are usually seen during the first stage of that disease, yet the physical symptoms were so entirely different that there could be no possibility of making an error in diagnosis. The second is a striking contrast to it so far as the mental symptoms are concerned, and is, as I have already said, the best instance of monomania which has come under my notice. When the two cases are looked at together, one is forced to inquire as to the probable causes which led to such a combination of nervous disorders. A still more interesting question would refer to the portions of the nervous centres affected in each case. Unfortunately we have no *post-mortem* examinations to aid in solving these questions; and, besides, it is very questionable if, in the present state of our knowledge of pathological anatomy of the nervous centres, such examinations would help us much to throw light on the connection between the mental symptoms and the diseased portions of the nervous system present in each case. Even in regard to progressive muscular atrophy, observers have not yet agreed as to the real seat of the lesion in the nervous centres; and it is not to be wondered at, in the case of mental disease where the phenomena are so varied and the organs so complex, that but little progress has as yet been made in referring certain morbid mental symptoms to limited diseased areas in the brain. Such progress has, however, been made of late years as to lead us to hope that we may yet be able to detect physical changes in the brain as being the causes of certain mental

* Psychological Medicine, 2nd edit., p. 286.

† Wasting Palsy, by Dr. Roberts in "System of Medicine," edited by Dr. Russell Reynolds, vol. ii., p. 172.

phenomena during life. Considering the great difficulties which beset such enquiries, it appears to be our duty to carefully consider all cases like the present, where we have unusual combinations of nervous diseases, as we may thereby obtain some hint which, when worked out, may lead us to a more successful method of studying mental phenomena and of examining nervous structures.

An Address on Medical Psychology. By HENRY MAUDSLEY, M.D., F.R.C.P., Professor of Medical Jurisprudence in University College; President of the Section.

(Delivered at the Opening of the Psychological Section of the British Medical Association.)

In beginning the work of this Section, over which I have the honour to preside, I shall confine myself to a few introductory remarks of a general character, leaving to those who will come after me the more exact scientific work of which we have fair promise in the papers that are to be read. The occasion seems fitting to take a short survey of the position of medical psychology in relation to certain important questions of the day, and to consider the bearing which its progress must eventually have upon them. Permit me, then, to ask you, first, to look back a little way at what medical psychology was, in order the better to realise what it is, and, if possible, to forecast something of the character of its future work. A glance at the past will show how great a step forward has been made, and may yield some reason for congratulation; a glance at the present, showing, as it cannot fail to do, how small a proportion the gains bear to what remains to be acquired, will prove that as yet we have rather discovered the right path than made much way on it—that we are, in truth, only on the threshold of the history of medical psychology as a science.

One of the saddest chapters in human history is that which describes the cruel manner in which the insane were treated in times past. Notwithstanding that it is happily a thing of the past, it will not be without profit to inquire from what causes the barbarous usage sprang: for it was not common to all nations and all times; on the contrary, it had its birth in the ignorance and superstition of the dark ages of