ST. MARY'S HOSPITAL.

CASES OF NERVE-DISORDER, RECORDED WITH
REFERENCE TO THE PROBABLE OPERATION
OF MALARIA AS A CAUSE.By C. HANDFIELD JONES, M.B., F.R.S., Assistant-Physician to
the Hospital.

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CASE VIII. S. S., aged 45 years, male, a plasterer, came under my care December 22nd, 1856, having been under treatment for the previous ten days. He had been cupped at the back of the neck to eight ounces, had a seton put in the left arm, tartar emetic ointment applied to the neck, and been purged, without benefit. He was of stout, rather short make, rather sanguineous aspect. He had been ill about four weeks, since a fall from a height of about eight feet. He states that he suffers with attacks of the following kind, occurring five or six times a day. He begins to wink, and then both eyes become drawn quite under the lids towards the right, one inwards, and the other outwards; and he then loses consciousness for four or five minutes, and falls down; he does not scream, but moans as if choked. He has continual headache all along the right upper cranial region from behind forwards. I witnessed the attacks more than once; they were perfectly involuntary, not attended by much flushing of head. He feels tremulous and nervous. He does not sleep well; has a trembling in the head when he lies down. Not an intemperate man; never drank spirits. Urine high coloured; bowels open; pulse of good force; skin warm. He was similarly affected two years ago, and got well after six months. He had rheumatism twelve or fourteen years ago. He has not had syphilis, but gonorrhœa long ago. Tongue clean; eats food well. I gave him at first valerian with ammonia and iodide of potassium, and camphor with extract of St. Ignatius' bean, thrice daily. The camphor, etc., were soon changed for assafoetida, which was given at first in five-grain doses four times a day; and, on June 2nd, in ten-grain doses every two hours, and continued at the same rate till February 20th, when he ceased to attend, having had only slight attacks in the previous fifteen days, and having been nearly free during several former weeks. The valerian and ammonia were given up when the assafoetida was given every two hours; but from January 9th to February 5th he took also the following medicine:—

R̄ Quinæ disulph. gr. iiii; tincturæ ferri sesquichloridi ℥xv;
acidi hydrochlorici ℥ij; aquæ cassiæ ʒi. M. Fiat haustus
ter die sumendus.

He took this with an intermission of four days only. For the last fortnight, a mixture, containing gallic acid, sulphate of zinc, infusion of calumba, and tincture of hyoscyamus, was substituted for the iron and quinine. He relapsed to some extent at one time, when a severe frost gave way to a thaw.

REMARKS. I have cited this case partly because it is of much interest in itself, as a history of a curious neurosis, but chiefly because I wish to contrast it with the three preceding, in all of which, together with cerebral affection, there were more or less marked symptoms of aguish disorder, as well as very great prostration of the nervous power generally. In this case there was nothing of the kind; and I do not feel that I have any sufficient reason for ascribing the phenomena to the action of malaria. The paroxysms evidently had much of the epileptic character, and the movements of the lids and eyeballs may be regarded as a kind of aura. The beneficial action of assafoetida, which seems to act as a peculiar cerebral nervine, or toner, confirms very decidedly the opinion expressed by Dr. Todd, that "the phenomena of the epileptic fit depend upon a disturbed state of the nervous force in certain parts of the brain—a morbidly excited polarity." What is wanted, therapeutically, is to find some drug or drugs which shall so influence the nutrition of the dynamic grey matter in the part affected, that it shall act with more

steadiness, and be less mobile and excitable. How difficult this is all experience declares. One great cause of this difficulty, I believe, is, that brain tissue partakes much more of individual peculiarity, and so differs much more in its vital endowments and reactions towards remedies, than nerve tissue does. We feel a great deal more confidence in our ability to cure a neuralgia than an epilepsy; still we trace much of the same features in the one as in the other, and our therapeutic proceedings are in principle the same. If excitement, excesses, bleeding, and all debilitating influences, aggravate an epilepsy, so in most cases do they a neuralgia. The curative means in both cases are such as give tone without stimulating. But it may well be conceived that the tissue of the cerebral convolutions, whose function is of so high an order, and whose nutritive actions are so liable to be deranged and impaired by mental or emotional influences, is far less likely to be in all cases modified alike by the same agent than other tissues of lower and simpler function.

CASE IX. — —, widow, without children, past mid-age, of mobile, hyperæsthetic temperament, was seen on Dec. 18th, 1855. She complains of a paroxysmal disorder, which comes on about 4 to 5 A.M., waking her out of her sleep. In each attack she experiences a great heat about the upper part of the abdomen, succeeded by chills and perspirations, the legs and feet being at the same time deadly cold, and much muscular tremour and nervous agitation coexisting. The attacks last one hour or more, several *accès* supervening one upon the other, and afterwards she is quite tranquil. She expresses great dread of them, and fears they will cause her to go out of her mind. In the morning, after one of these attacks, she has quite an aguish aspect, face sunk, skin cool, pulse languid, mind and muscular power greatly depressed; bowels costive; appetite tolerable; digestion not much amiss; tongue clean. She has had these attacks at various times previously, and recovered under treatment. She has suffered from them now about four weeks. There was nothing morbid in the thoracic viscera, except some slight enlargement of the right ventricle of the heart. The urine was normal, specific gravity 1024. During my attendance she had occasionally some asthmatic affection, there being a sense of oppression at the chest, with frequent sighing, and morning expectoration: this seemed in some degree to replace the nocturnal paroxysm; it was not, however, confined to the night. The remedies employed were nervines and tonics. Bark with henbane and ammonia produced for a time very good effects. Quinine also was of decided benefit, especially when given in doses of gr. iiss three times a day, with the following pills three times a day.

R̄ Zinci sulph. gr. iiss; extracti hyoscyami gr. iiss.

Under this she passed seventeen nights without any paroxysms; they then returned, though less severe, and continued for four nights, until the medicines were all omitted, when they ceased, and, I have reason to believe, have not returned. There had been no relapse seven weeks after the last. Small doses (one-twenty-fourth to one-twelfth of a grain) of morphia at night appeared to aid in keeping off the attacks, but calomel and aperients were of very little avail. It is more probable, I think, that the disorder was really a masked intermittent, the cold stage being the only one which was well marked. Acting on this impression, I gave her (January 29th, when she had just had a more severe attack on the previous night than any before, attended with sickness, vomiting of watery fluid, and palpitation, and was greatly depressed) three grains of quinine in the middle of the day, and as many more at bed-time. The succeeding night she slept better than she had for a long time. When, however, she continued the same morning dose, with four and a half grains at bed-time, on January 31st, it acted injuriously, and she had a very severe paroxysm. After this she went on favourably, as above mentioned, with a grain and a half of quinine three times a day, and the zinc and henbane. I forbore giving her quinine at first, as she declared it did not agree with her.

This seems to have been true, so far that it was essential to adjust the dose exactly to the requirements of the system. When she finally omitted medicine, it was from her strong conviction that she had taken it as long as it would benefit her, and that further continuance of it would be injurious. So the event proved; yet I could see no apparent sign that it was disagreeing; the bowels were regulated, and the tongue was quite natural. While I was attending this case, I had under my care several of nocturnal abdominal neuralgia; and the impression on my mind was very strong that there was some common exciting cause.

CASE X. A., aged 39 years, male, married, employed as a carriage fitter on the railway, was admitted on April 2nd, 1855. Formerly he was a sailor, and was on the west coast of Africa, where he had "a slight touch of fever". He had gonorrhoea eight or nine years ago; no eruption. He has had some rheumatism. He is rather tall and robust. He states that he has been ill three or four months, off and on. He lost his speech at first; it is now impaired, "titubans". The arms and legs feel weak at various times, chiefly on exertion. He has a dull pain across the forehead, not constant, and not worse when lying down. Head rather warm; no tenderness in cranium or spine; intellect seems obscured; memory impaired; skin cool; pulse weak; bowels costive; pupils sluggish, left larger than right; gums swollen and red. What to think of these symptoms I did not well know; it seemed to me most probable that there was some chronic rheumatic or syphilitic affection of the meninges or cranial bones. So I ordered him five grains of iodide of potassium in an ounce of decoction of cinchona, three times a day; and a blister to the neck. This was continued fourteen days, and then one-tenth of a grain of bichloride of mercury was added: the blister had been repeated the week before. At the end of three weeks I left off the iodide of potassium, and gave him one-eighth of a grain of bichloride of mercury in an ounce of decoction of cinchona, three times a day.

May 7th. I saw him for the last time, when he had improved a good deal; but he had trembling of the right arm and leg. The blister was repeated.

He now ceased to attend, and I did not see him again till February 23rd, 1856, when he returned, stating that he had got quite well on the former occasion, and resumed work. His present illness had lasted, he said, one week. His condition was sufficiently obscure. I noted the following particulars, almost as he described them. "Knees tremble." Right arm is tremulous. "Is all of a tremble"; sometimes falls down, sometimes loses consciousness; skin cool; pulse weak; bowels costive; tongue natural; pallid; head rather hot; no blue line on gums; urine turbid as from urates, not albuminous. He is not emaciated. When at sea he used to drink, but has not for eighteen months. He appears to be in a general fidgety, fussy condition. My attention had by this time been aroused to the effects of obscure aguish or malarious disorder, and I thought it not unlikely that this was an instance of it. His history of having had fever slightly at Sierra Leone made this more probable. I gave him, therefore, the following medicine:—

R Ammoniae sesquicarb. gr. iv; liquoris potassae arsenitis ℥v; decocti cinchonae ʒi. M. Fiat haustus ter die sumendus.

March 8th. He reports that he is a great deal better. The right arm is steady. Speech improved; no loss of consciousness; head cooler. He has some pain in the right knee.

March 22nd. He is a good deal better.

March 29th. He had some swelling in the right knee the other day; there is none now. He improves in speech, and is a great deal stronger.

After this I saw no more of him, and for the following interesting sequel I am indebted to the kindness of Dr. Murchison.

On the evening of March 29th, at 10 P.M., just after his supper, he suddenly lost his speech, and remained speech-

less until his admission into the hospital on March 31st. The day after he had a fit, consisting of convulsive movements of all the body, but chiefly of the right side, with rigidity of the flexors of the arm and extensors of the knee. These fits recurred frequently during his stay in the hospital, the intellect remaining clear.

April 5th. There was complete paralysis of motion and sensation in the right arm and leg, which are relaxed. The mouth is drawn to the left. Reflex movements could be excited in the paralysed leg. The fits lasted two or three minutes, several occurring one after the other: they were not succeeded by coma; he was able to recognise his children immediately after them. No fits occurred for about twenty-four hours before death, which took place April 10th; but he became very weak, unable to swallow, and gradually sank, his intellect remaining clear to the last. His urine and faeces were all passed under him. The heart's sounds were normal.

The treatment consisted in the application of six leeches behind the ears, and four to the left side of the head, and in mild purgatives.

At the *post mortem* examination, the cerebral veins and sinuses were found full of dark blood; the smaller veins were filled, but the grey matter was not dark, nor the minute vessels injected. Considerable subarachnoid effusion existed, and there were some patches of opacity over both hemispheres. The substance of the brain was firm and consistent; the white matter congested. In each lateral ventricle there were six drachms of serous fluid; the vessels on the walls were congested, and a largish one on each choroid plexus. In these, also, there were a number of cysts, some as large as peas. At the base of the brain there was some serous effusion, and the vessels were full of blood. Coats of arteries not diseased. Nothing morbid at all was found in the brain or cerebellum, though they were very carefully examined for two hours; no extravasation, softening, or trace of old cysts. The *venae medullae spinalis* were congested, especially at the origin of the brachial nerves; nothing morbid in the spinal cord. The heart and lungs were healthy. The kidneys appeared healthy. The liver was slightly fatty. The spleen was of usual size, with cartilaginous patches on the surface. Microscopic examination detected nothing morbid in the brain.

His wife states that one of his brothers has dragging of one leg, and that two of his sisters have died with paralysis at the age of 45. He has resided in Hampden Street, near the Paddington Canal, for some length of time, at least as long ago as the date of his first application to the hospital. A friend, who is attached to a dispensary in the neighbourhood, informs me that he has at least a dozen cases of intermittent fever under his care, who all reside in that street, or in an adjacent one. I think it will be allowed that this case affords something very near a demonstration of the action of malaria in producing effects of palsy and irritation. The man had once had malarious fever, and thereby acquired a predisposition to suffer from even a slight renewal of the exciting cause. He inhabited a locality where intermittent fever prevailed to some extent. He has somewhat similar symptoms in two successive years, and dies. The *post mortem* shows no more morbid condition, except a certain amount of venous congestion and some serous effusion. He had benefited on the last occasion very materially by the use of arsenic and tonics, and on the former by the use of iodide of potassium and bichloride of mercury, with blisters. As rheumatism is a common sequel of malarious disorder, it is very possible that his attack in 1855 was actually rheumatic, and that the remedies then employed were quite appropriate. One can hardly avoid the thought that many a case of simple and serous apoplexy, of which we have no other explanation than that there was "determination of blood to the head", is of the same pathological nature as the one now related.

[To be continued.]