Original Communications.

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., Physician to St. Mary's Hospital.

SERIES II.

CASE I. Alice W., aged 2, residing very near the canal at Kensal New Town, was admitted November 10th, 1856. She had been ill one year. She is emaciating; the abdomen is large, soft, and distended by flatus; the bowels are relaxed somewhat, the motions offensive. The tongue is clean. She takes her food well. Under the use of cod-liver oil, with steel wine and occasional doses of hydrargyrum cum cretâ, she improved till December 20th.

December 22nd. The following note was made. There are patches of roseolous rash all over her, with general pyrexia. She is very restless at night, and has great thirst. The bowels are open, the motions white and slimy. She has got all her teeth. She has gained much flesh. The oil was continued, and a saline mixture with henbane given also, and a dose of grey powder and rhubarb alternate nights.

December 29th. The head has been very hot at night, the back of it especially. She is delirious, startled, and restless at night, with cold perspirations. The motions are as before. The tongue is clean. She still gets stouter. The oil and steel wine were continued, and iodide of potassium with tincture of cinchona were prescribed in cascarella infusion. One grain of Dover's powder was ordered to be taken every night.

January 7th, 1857. She still gets stouter, but is very restless at night, and scarce sleeps by day. She was ordered to continue the steel wine and oil, and to have three-fourths of a grain of quinine at four and seven p.m. daily.

January 12th. She has slept very much better until last night, when she had only one quinine dose. She is suffering again with feverish heat; the head is hot; there are red patches on the cheek and thighs. There was no pyrexia at the time of visit. She is much stronger, and looks very well.

January 19th. The face and legs are all covered with patchy redness, which appeared this morning. She has been very much better all the week. The oil and quinine were continued.

January 26th. She has been quite well, doing nicely all the week; she sleeps very well, and can now almost run about; a month ago she could not stand.

February 2nd. She has comparatively quite recovered. The bowels are right. She is much stouter. She has taken the quinine only since last date; the mother calls it "sleeping medicine." She was discharged.

REMARKS. I suspect very much that the canal influence was concerned in causing this child's illness. The morbid phenomena were slight; bowel disorder, roseolous rash, nocturnal cerebral disturbance, and pyrexia. All these may be referred to paralysis of vaso-motor nerves. One may consider the cutaneous hyperæmia as an outward manifestation of that which took place at night in the membranes of the brain and produced delirium. The positive good effect of quinine, after other means, including direct sedatives, failed, testifies strongly to the malarious character of the morbid action. It is apparent how injurious any depletory treatment would have been, supposing the head affection to have been regarded as substantive.

CASE II. W. H. B., male, aged 5, was admitted May 14th, 1857. He resides in Bayswater in a good situation. There are, however, some damp fields behind the house where building is going on. He has been lame three or four months, more decidedly ill the last three weeks. His mother states that he screams with pain in both legs the whole night through, only getting short snatches of sleep. The pain comes on half an hour after he goes to bed, whatever the hour be. The other night, after a warm bath, he was unconscious and delirious the whole night. During the day he is quite well, except that he cannot walk straight, and cannot bear any one to touch his legs. The appetite is quite good; the tongue much coated, with red tip; the bowels are regular; the urine very pale. He walks lame

and unsteadily. His face is pale. He is naturally indolent, not like the other children. He was treated by iron and quinine with three grains of Dover's powder at night till June 1st, and improved somewhat. From June 1st to 4th, the iron and quinine were omitted.

June 4th. He does not sleep; is very delirious at night, screaming very much. He plays about in the day, but screams out if any one touches the leg. He walks very lame with the right leg, but there is no sufficient evidence of articular disease; he refers the pain to about the junction of the upper and middle third of the front of the thigh. He can walk a good deal better than he could at first. The skin is cool; the pulse quiet; urine natural; the bowels open; the tongue whitish.

R Ferri et quinae citratis gr. viij; potassii iodidi gr. i; tincturae nucis vomicae ℥x; aquae ʒi. M. Fiat haustus ter die sumendus.

Omni nocte sumat pulveris Doveri gr. vi.

June 11th. He is considerably better as regards his nights; he has slept remarkably well three nights without Dover's powder. He allows me to move the leg without complaint, and uses it himself more freely; he has walked to the hospital in half an hour less time than on any other day.

June 18th. He sleeps all night now. The mixture was continued, increasing the dose of iodide of potassium to two grains.

June 25th. The nights are more disturbed again; he cried all last night. The mixture was continued, omitting the iodide of potassium; and he was ordered to have a drachm of cod-liver oil three times a day.

July 2nd. He has had a good night, and is considerably better.

July 9th. He walks better, and looks well.

July 16th. He cried the whole of last night; other nights have been good. He walks limping, but is cheerful.

R Strychninae gr. 1-30; quinae disulph. gr. i; ferri sulphatis gr. ij; acidi sulph. diluti ℥v; aquae ʒss. M. Fiat haustus ter die sumendus. The oil was continued.

July 23rd. There is high delirium at night when he takes the medicine, even in half-doses; he is well during the day. The bowels are right. The oil alone was continued.

July 30th. He is in great pain at night, wakes up, and cries much. The tongue is whitish.

R Morph. acet. gr. 1-6; aquae ʒij. M. Fiat haustus omni nocte sumendus.

Omni nocte sumat hydrargyri cum cretâ gr. i.

R Pulveris rhei gr. v; tincturae aloes ℥xx; aquae cassia ʒiv. M. Fiat haustus omni mane sumendus.

August 3rd. He does not sleep at all, but cries all night through, even worse than before. The bowels are open; the tongue whitish. He was ordered to have two grains of disulphate of quinine with a little dilute sulphuric acid at seven and nine p.m. daily.

August 17th. He eats well and sleeps well; he has no screaming at night, but is in fact recovered. He halts in walking, but gets on well.

REMARKS. This boy did not reside in a situation that would ordinarily have been suspected of malaria. He suffered, however, from well marked neuralgia with periodic exacerbations, controlled very positively by quinine, especially when given so as to anticipate the nocturnal attack, and not depending so far as appeared on any other cause than some endemic influence. It is especially worth notice that after he had benefited very greatly by iron and quinine with nux vomica, the administration of strychnine in place of the latter disagreed very decidedly, and seemed to aggravate the symptoms. I have observed this before; and I believe it gives the lesson that even when tonics are indicated in cases of nerve-disorder, it requires care to adapt them well to the system. They may entirely fail to do good from being in too large a dose, or in some form that causes irritation. It is never to be forgotten that most nerve tonics are tissue irritants, and that skill may be requisite to obtain the beneficial effect and avoid the injurious. As in case I, sedatives were useless. The length of time during which it was necessary to continue treatment, and the tendency to relapse, are points to be remarked. The cause of the abiding lameness was probably some permanent alteration of the muscular nerves of the part; there was certainly, as careful examination showed, no disease of the hip-joint.

CASE III. Mrs. E., aged about 45, of dull puffy aspect, robust make, having had no children, residing in one of the best streets at the west end of town, came under my care in the beginning of April 1856. About two years before, she seems to have had rheumatism while at the seaside; her limbs she described as being stiff, and copious perspirations existing at the same time. After she had removed to an inland locality, she suffered a

severe attack of abdominal pain, on account of which she was treated by mercury every two hours until she became severely salivated. This was done from fear of cholera, which was prevailing at the time. Since this period she has never been well. She complains now of hot and cold sensations, occasional vomiting of food, oppression at the chest, sense of suffocation, tendency to faint, with apprehension of sudden death, so that she quite expects to be found dead some day. At times she is so nervous that she cannot bear the rustling of a newspaper. She is always worse in the early part of the day, and better towards night, but her sleep is often restless. Her memory appears to fail, sometimes so much that she cannot remember how to spell her name. The cold sensations amount at times to shivering; at others, she has perspirations. The pillow at night feels too hard for her head, which seems to her to yield and be pressed in. She has had rather profuse catamenial flow, but it has quite ceased for some months. She takes little exercise. The skin is cool; the pulse natural; the bowels constive. During the course of my attendance upon her at intervals for a year, the same symptoms continued more or less marked at various periods with other intercurrent phenomena. At one time her nose was stopped up, tender on pressure, with a slightly sanguineous mucous discharge; the tongue at the same time felt hot and sore. There was repeatedly a good deal of swelling of the hands and feet; of the latter especially, and most in the morning. In the latter part of the summer she fell into an extreme state of nervous depression, evincing the most extreme susceptibility to anything like a chill, her state being in fact such that the acutest observer would have been perplexed to say whether the root-malady was of mental or bodily origin. About the middle of January, she had an attack of facial neuralgia, with heat flushes and chills, general puffiness and swelling of the subcutaneous tissue, a sensation of being bloated, and general *malaise*. The catamenial discharge was very irregular—a mere occasional show. The pulse was quiet; the skin cool; the tongue sodden and white. Three days later, having been put on quinine with *nux vomica*, she was much better; the facial neuralgia was nearly gone, and the puffy swelling of the hands was very much diminished. She could now close her hands, which before was scarcely possible. A symptom not unfrequently present was wheezing at night—a kind of asthmatic affection. Latterly, some circumscribed erythema has appeared on both legs. About the beginning of last June, she was suffering much with pain in the head, a stupefied sensation, nausea and general depression. At the end of the month, she had an attack of hemiplegia, affecting the right hand and arm, and her power of speech was much impaired. In this attack I did not see her, being absent from town; but the opinion of the eminent physician who attended her, as expressed by himself to me, was “that the attack had more to do with some actual or threatened dilapidation of the brain or its vessels than with any active determination of blood to the part.” The paralysis continued for about two months; there was no loss of consciousness at any time. After the paralysis occurred, she had a good deal of eruption about the neck and elsewhere, so that her skin at times was quite red.

The remedies employed have been strychnia, quinine, and iron, with occasional aperients; these have been of material benefit, though very imperfectly tried. Change of air on those occasions at least has been of remarkable efficacy, and is evidently that which she essentially wants. It restored her from the very depth of nervous distress and debility to a condition of perfect comfort, so that she was quite surprised at herself when she found what she was able to do.

REMARKS. In its earlier period, this case might well have passed for an instance of hysteria (that indefinite, much abused term), or of amenorrhoeal disorder. The remarkable benefit derived, on more than one occasion, from change of air, seems to go near to prove that the malady was of a different kind—a form of aguish disorder. Entertaining this view from the first, it was to me a matter of extreme interest to observe the various phenomena that arose, and to perceive how they were all referable to the action of a poison on the nervous system. Some evidently had their seat in the cerebro-spinal, others in the vaso-motor nerves. Of the former class were the facial neuralgia, the hyperæsthesia, and the hemiplegia; of the latter, the heat-flushes and chills, the subcutaneous œdema, the syncopie tendency, and the erythematous eruption. The paralytic seizure was, I suppose, of the same kind as that designated by Abercrombie simple apoplexy. I entirely agree in the opinion above quoted, that the attack was not owing to sanguineous congestion; but I incline strongly to the view that the pathological state was rather one of functional dis-

order than of any organic change. It seems to me most highly probable that the motor nervous centre may be similarly affected as a muscular nerve in peripheral paralysis, or a sensory nerve in many neuralgic attacks. The exact kind of change which occurs we do not know, but it is evidently one which interrupts the function for a time. M. Bailly, whose work on pernicious intermittent fevers is well worth perusal, recognises most distinctly a form of coma depending solely on a particular state of the nervous force, quite independent of congestion. The subcutaneous œdema was a very curious symptom, and was most palpable, and was not to be accounted for by any disease of heart or kidney. Like the other phenomena belonging to the vaso-motor nerves, it seems to imply a loss of power, a degree of paralysis in them. In short, if we regard the case as one in which a poisonous influence was acting on and depressing the *vis nervosa* throughout the system, the manifold phenomena become quite intelligible. The marked benefit derived from the use of nerve-tonics shows that the condition of the nervous system was one of depression and debility; and the still more decided good produced by change of air makes it very probable that the poisonous influence was of local origin. Dr. Copland notices the morning depression and evening amelioration as a symptom often observable in chronic obscure remittent—a term which correctly designates, I think, the foregoing history.

CASE IV. M. B., aged 41, the wife of a butcher, was admitted July 2nd, 1856. She had been ill two months. She suffers with swimming in head, pains about the sacrum, dimness of sight, flushes of heat preceded by chills, and failure of memory. Her appetite is bad; the tongue is too red; the urine is very high coloured. She has much thirst; the bowels are regular. There is no uterine affection. Ten days ago, she got out of bed at midnight, and fell down insensible, and remained so for two hours: she felt very ill in the morning. At this time last year, she had attacks of giddiness and violent retching for twenty-four hours. She took sulphate of strychnine, with citrate of iron and quinine, for about seven weeks; and improved very much.

REMARKS. I regard this as an instance of a weak nervous system succumbing under some depressing poison; it may be a malarious miasm, or foul gulley-hole emanations, or some undefinable urban influence. It is clear that good was done by sustained tonic treatment, enabling the weak system better to resist the depressing agency.

CASE V. D. M., aged 22, was admitted February 13th, 1856. He had been employed as a boatman on Paddington Canal for nine years. He is of healthy aspect. He had rheumatism badly two years ago. He was attacked with hemiplegia three weeks ago; the right arm and leg are affected, and also his speech. He has no pain in the head; the intellect is clear. The skin is cool; the pulse weak; the bowels open. Iodide of potassium, and afterwards bichloride of mercury, were given during the first four or five weeks, with some, but not much, benefit.

March 15th. He was feeling very weak, faint, and languid. Quinine was then given, at first three grains, afterwards seven grains, three times a day. Under this he improved at once and decidedly, and was able to return to work about the middle of April. A month later, I heard that he remained at work on the canal, and that his speech and motor powers were very fairly perfect; but he had no appetite, and was getting thin. From this I was quite prepared to hear that, a few days afterwards, he was again attacked with hemiplegia, but now of the left side—the opposite to that first affected. His speech was also lost, and he experienced a degree of faintness. The attack occurred at Tring, where he was under the skilful care of Mr. Dewsbury, who kindly favoured me with a history of his state. As the hemiplegia yielded, acute rheumatism appeared.

REMARKS. I can hardly think that the paralytic seizures in this case depended on any organic disease. Had such been the case, it is not probable that the affection would have occurred the second time in a different part, or that recovery should have taken place after two attacks, or that quinine should have been of decided efficacy for good, as it was on the first occasion. From the experience I have had in other instances of the injurious influence of a residence near a canal on the health, I am much inclined to believe that this man owed his hemiplegic attacks to some malarious emanation from this source. It seems to me also far from improbable that the sequel of acute rheumatism in the second attack was not an accidental occurrence, but that the same morbid influence affected at first the brain, and afterwards the vaso-motor

nerves of the limbs. It is an old opinion, that rheumatism and malarious disorder are in some way allied.

CASE VI. S. A., aged 50, female, married, who had had four miscarriages and three children, was admitted April 9th. She had rheumatic fever six years ago. She has been salivated severely. She is of rather sanguine aspect, and has always been subject to indigestion. The heart is enlarged; it beats in the epigastrium, as well as in the normal site; the sounds are nearly normal. Breathing is easy now; but she is awakened after an hour's sleep at night, with wheezing in the chest—a kind of asthmatic paroxysm. The urine is clear and free. The catamenia ceased suddenly two years ago. The pulse is regular, weak. The tongue is clean. She has some cough and expectoration. There is much leucorrhœa. Under the use of various tonics, latterly three grains of quinine three times daily for nearly fourteen days, she improved much. On June 10th, she reported that she had been going on quite well till May 30th, when there came on a discharge of blood from the left nostril; and the next day she had a sort of fit, in which she was unconscious for an hour. The attack came on suddenly, and was preceded by throbbing of the left side of the head and palpitation. She had now a mucous discharge from the nose, and pain on the left side of the nose, the orbit, and forehead. The pulse was quick; she had no appetite. She felt very weak indeed, and had copious perspiration at times; no chills, but heat-flushes. The bowels were well open. Quinine was continued in four-grain doses three times a day, with twenty minims of tincture of sesquichloride of iron. After four days, this was changed for eight grains of quinine three times a day.

June 21st. She stated that the nasal discharge was what she had most to complain of; it occurred from both nostrils, was bloody, and attended with pain and heat about the bridge. She derived much benefit from the medicine, and was worse if her supply failed her.

June 28th. She was still further improved, and the discharge from the nose was not at all like what it had been. She then quitted London.

REMARKS. This patient's health had no doubt been much impaired by the severe salivation and the miscarriages she had suffered. The attack on May 31st was no doubt one of cerebral congestion, dependent on paralytic dilatation of the carotids and other vessels, chiefly the left. It was similar to apoplectic seizures, referred to by Mr. Martin, at page 204 of his work, where he quotes Dr. Henderson's opinion that the distinction between apoplexy and remittent fever was scarcely possible. The epistaxis and mucous flux were both poured forth from surfaces supplied by ramifications of the paralysed vessels, and probably gave some relief to the cerebral congestion. The nerve-toning action of quinine both relieved the head and diminished very much the morbid flux by lessening the flow of blood to the seat of morbid action.

HYSTERICAL COMA, WITH PARALYSIS.

By JAMES WILLIAMS, M.D., Aspley Guise.

[Read before the South Midland Branch, September 29th, 1857.]

EMMA K., of Aspley Guise, aged 20, daughter of highly scrofulous parents, at the age of fourteen became the subject of scrofulous ophthalmia, which continued some time, and left bad opacities. Soon after this, she had bronchocele, which was treated in the usual manner, and in a few months gradually subsided. This was followed by a loss of voice, which has continued, with some intermissions, until the present time. About this time (1852), mesenteric enlargement came on, rendering the abdomen tense and indurated, interfering very much with the healthy development of the system. These symptoms continued for upwards of two years, with all the usual accompaniments, variable appetite, etc., and torpor of the whole frame, with troublesome hysterical symptoms. After some eighteen months treatment, the tumefaction began to subside; and, at the termination of the period above mentioned, the hysteric fits became gradually of an epileptic character, and on one occasion, during the autumn of 1855, she had as many as eight distinct seizures. After eating a very hearty supper, she had a severe fit, in which the eyes became closed, and articulation totally lost for eighteen weeks; that is, from October 15th, 1855, till the following March 1856.

After Emma K. had been in bed about a month, her sister (who had been consumptive for several years) died. During

her sister's illness, Emma K. lay very still generally, and especially when any one was in the room conversing with her sister. When the consumptive sister was dying, Emma was very restless, but did not notice her death particularly.

When the bell was tolling for Elizabeth's funeral, Emma beat time with the bell; and, when the dead body was removed, she motioned them back towards her with her hand. She also made a mourning noise after the people had left the house, but no articulate sound.

During the whole time (five months) of this partially insensible state, she had occasional fits, and, during the early part of the attack, she passed her motions and urine involuntarily, and seemed to all appearance like a person labouring under the coma attendant upon apoplexy. In the course of six or seven weeks, consciousness gradually returned, and she showed some restlessness upon wishing to pass her motions, and soon after this she would signify her want of food by gnawing her finger; and, if she wanted drink, would lift her hand before her mouth, as we should do in raising a cup.

The catamenia appeared once (and the *first time*) only during the early part of the semi-unconscious state. Blisters were applied to the neck, and the head shaved, with no effect. Other judicious treatment was adopted, but with no beneficial result. Our lamented friend Mr. Thomas Camps, of Fenny Stratford, saw her. He attributed the symptoms to scrofulous taint, and prescribed iodide of potassium; but this made her restless, and it was therefore discontinued.

On one or two occasions, I tried to raise her from the bed, but the body became perfectly rigid, and convulsions were sometimes induced thereby. If an attempt was made to open the eyes, they closed the more violently; scarcely any of the cornea could be seen, from the upraised condition of the eyeball. She would generally put out the tongue when requested to do so, and sometimes nod assent to questions. It may be mentioned that, if the body were raised in bed, and the support for a moment withheld, she fell like a totally inanimate substance.

About a month before she opened her eyes, a seton was inserted in the nape of the neck, and gave no apparent pain. This is also the case in catalepsy, epilepsy, and apoplexy; but in hysteria the patient is conscious, and remembers events. When the seton became inflamed and the discharge established, she manifested uneasiness when it was dressed. After the discharge had been established about a month, with no other apparent change, one eye opened, giving her a very strange appearance. This was on March 12th. Next day, the other eye opened (March 13th); and the next day (14th), she spoke, and afterwards conversed with her mother, having been unable to do either for upwards of five months. She had no recollection of her sister's death, nor indeed of anything that had occurred in the interval, though, as I have shown, she had consciousness generally as regards the mind, except during the first month of her illness, but no physical sensibility as to pain.

After the recovery of her sight and articulation, she gradually improved in other respects, but remained in bed another week. Her legs continue flabby and swollen to this day, and her voice has been lost again nearly twelve months. One eye has a large speck upon it; the mind is weak; and the system generally in a very feeble condition. The bowels are smaller, though still large; and difficulty of swallowing also remains a troublesome symptom, and hard food is much disliked. It should be stated that the various members of the family are below the average standard of intellect.

The foregoing narrative contains much to interest the more philosophical and speculative members of our profession; and I would gladly have entered upon the various connexions with chorea, catalepsy, etc. The field, however, is so wide that, for the present, I must be content with this brief outline of facts.

The reading of this paper elicited considerable discussion, in which cases were quoted bearing upon the hysterical origin of the case. Instances of feigned disease were described, in which some similarity was supposed to exist. The general opinion, however, was, that the case in question was not assumed, but real disease, dependent upon the presence of scrofulous tubercle upon the brain, probably about the crura cerebri and origin of the portio dura, thereby producing and perpetuating irritation to the extremities of the facial nerve, until absorption gradually took place, releasing the patient from the strange vagaries of disordered physiological and pathological conditions.